

Creedy

PN-AM-798

ISN = 28341

For discussion only

SUMMARY OF BASIC SHELTER NEEDS
IN CENTRAL AMERICA STUDY

AGENCY FOR INTERNATIONAL ✓
DEVELOPMENT
OFFICE OF HOUSING
JANUARY, 1981

1

EXECUTIVE SUMMARY

I. Introduction

This study examined the shelter needs of the five Central American countries through the year 2000. The purposes of the study were to: (1) determine the amount of unmet shelter needs that exists in Central America; (2) estimate the investment levels required to provide basic shelter for all Central Americans who currently are not being provided or do not currently have adequate housing; and (3) estimate the impact upon Central American economies of increasing current investment levels for basic shelter. Having estimated shelter needs within an "order of magnitude" context, the study may be considered to be an important first step toward the formulation of a comprehensive and long range shelter strategy in Central America for the next twenty years - 1980 to 2000 planning period.

II. Study Findings

Among the major findings of the "Basic Shelter Needs in Central America, 1980-2000" study are the following:

- I. AN AVERAGE INCREASE OF 1.6 PERCENT IN THE SHARE OF GROSS DOMESTIC PRODUCT (GDP) IN HOUSING WOULD BE SUFFICIENT OVER THE NEXT TWENTY YEARS TO PROVIDE A BASIC SHELTER UNIT FOR ALL CENTRAL AMERICANS WHO CURRENTLY ARE NOT BEING PROVIDED ADEQUATE HOUSING. (A BASIC SHELTER UNIT IS DEFINED AS HOUSING THAT CAN OR COULD BE AFFORDABLE WITHOUT SUBSIDIES.)

To fully appreciate the impacts of this finding it is important to understand from A.I.D.'s standpoint what does an acceptable basic minimal shelter unit mean.

First, it has do with an evolutionary process. It is not possible to provide at the outset a three bedroom house to everyone. On the other hand, steps can be taken to improve significantly people's current living conditions, especially if we recognize the tremendous efforts that many families have had to exert to provide themselves some type of shelter through informally established channels. That is, these families do not and cannot not make use of institutions that sell and urbanize land, that build, or that finance housing. The basic shelter unit is what can be provided beyond what people can secure for themselves from the so-called informal shelter sector. Typically, this would include clear title to a lot, basic services such as water and sewage, a very small structure at the outset or the materials to build a small structure. Families that currently live in marginal communities frequently already have one or several of the above components of a basic shelter unit. Therefore, it is not necessary that they be provided with all of the basic shelter unit components.

From the above we derive a second premise, that is, there is a need to upgrade existing communities or settlements. It is not necessary in a large segment of what constitutes the shelter deficit to provide new housing to satisfy family needs. Upgrading programs can be very low cost from a financial and social standpoint. This may include legal services for resolving land tenure problems, extension of trunk water and sewer lines, and loans for the repair and enlargement of existing housing that would contribute to reduction of the shelter deficit.

11

For both new housing and upgrading programs, it will be essential to apply minimum standards. For example, a 60 square meter lot would be adequate for urban areas. It is not always necessary to provide water or other basic services to each house when communal water or other basic services fulfill people's needs. Likewise it is not always necessary that the building material be concrete or brick when a locally available building material may be quite adequate.

Finally, through a combination of the three above premises new housing or upgrading programs can be provided without subsidies in 90% of the cases. Very few families spend nothing on their housing no matter how precarious their living situation may be. Those same expenditures would cover the costs of securing a basic shelter unit of the type described above. This would permit the development of programs with the resources of national financial systems, reserving public sector resources for which there are great demands for priority programs for meeting the needs of the most needy families.

It is upon the four premises cited above that we base this first study finding.

2. OVER THE NEXT FIVE YEARS - 1981-1985 -, THE AVERAGE INVESTMENT TO PROVIDE AFFORDABLE BASIC SHELTER TO ALL THOSE IN NEED WOULD AMOUNT TO ABOUT \$600-MILLION ANNUALLY FOR THE CENTRAL AMERICAN REGION. PROJECT YEARLY INVESTMENT LEVELS WITHIN THE REGION WOULD RANGE FROM ABOUT \$60-MILLION EACH FOR HONDURAS AND NICARAGUA TO NEARLY \$100-MILLION FOR EL SALVADOR, \$150-MILLION FOR COSTA RICA, AND \$240-MILLION FOR GUATEMALA.

It would be incorrect to assume that the above figures are precise. Working with historical data gathered at different dates that are not precise and with very approximate macroeconomic and demographic projections over a twenty year period it is very difficult to make very precise estimates for a point in time — e.g. year 2000. However, that has not been the study objective. It would be a mere coincidence if the real investment levels for housing in Central America over the next twenty years turned out to be the figures cited by this study. It would not be surprising that investment levels would be of the order of magnitude of those cited in this study, if large scale housing programs are developed.

One cannot use the investment level figures cited as the bases for detailed programming of financial resources. They may serve as the bases for financial resource level feasibility studies and studies of economic opportunity costs of efforts to meet basic shelter needs of Central American countries.

Above all, the investment level and Gross Domestic Product figures are not quantitative but qualitative. The study findings should serve to convert pessimism to optimism and indecision in making firm commitments to decisiveness for positive action. Following this study there must be other more detailed studies that address questions not covered by this one such as: (1) realistic estimates of the supply of land and resources; and (2) definitive estimates of resources. Furthermore, in the short range future other assumptions will have to be considered.

3. EXCEPT FOR THE POOREST 10 PERCENT OF THE CENTRAL AMERICAN POPULATION, ADEQUATE AND ACCEPTABLE SHELTER COULD BE PROVIDED FOR ALL AT A COST NOT EXCEEDING WHAT POOR HOUSEHOLDS ALREADY NORMALLY SPEND ON SHELTER SERVICES FROM THEIR CURRENT INCOMES.
4. TO MEET THE REGION'S BASIC SHELTER NEEDS OVER THE NEXT TWENTY YEARS, SLIGHTLY OVER HALF OF ALL NATIONAL RESOURCES CURRENTLY SPENT ON HOUSING WILL HAVE TO BE DIRECTED TO THOSE WHO NOW CANNOT AFFORD BASIC SHELTER AND SERVICES. CURRENTLY LESS THAN ONE-THIRD OF HOUSING INVESTMENT IS DEVOTED TO THE SHELTER NEEDS OF THESE SEGMENTS OF THE POPULATION. THEREFORE, SUBSTANTIAL SHIFTS IN PRESENT INVESTMENT PATTERNS FOR HOUSING PROGRAMS WILL HAVE TO BE MADE IN THE REGION TO ACCOMMODATE THESE BASIC SHELTER NEEDS OVER THE NEXT TWENTY YEARS.

This study addresses itself to the basic needs for access to a place to live, access to a potable water source, security of tenure to a piece of land, and to those minimal considerations of an individual's living space. The emphasis of this study is to address the need for fulfilling such basic requirements for shelter of all citizens, especially that 70% or more of the population who, traditionally, have partially or completely not had any possibility of securing for themselves an acceptable basic minimal shelter unit.

Therefore, the implications are not only the requirement to launch large scale housing programs, but the need to direct those programs specifically toward meeting the needs of the majority of those people who have not been served in any fashion by existing housing programs. From the findings of this study, one concludes that it is possible to redirect the focus of housing programs without the need to introduce massive subsidies that would adversely impact upon the allocation of scarce public resources.

It is feasible to finance on a complete cost recovery bases 90% of the effort to meet the needs identified by this study.

5. CENTRAL AMERICA'S BASIC SHELTER NEEDS ARE PREDOMINANTLY URBAN AND MORE SPECIFICALLY METROPOLITAN. AN OVERALL AVERAGE OF 60 PERCENT OF THE PROJECTED NEED IS IN METROPOLITAN, ANOTHER 23 PERCENT IS NON-METROPOLITAN URBAN, AND ONLY 17 PERCENT IS RURAL.
6. ABOUT TWO-THIRDS OF THE NEEDS FOR THE 1980 TO 2000 PERIOD WILL BE FOR NEW SHELTER CONSTRUCTION AND ONE-THIRD WILL BE FOR UPGRADING.

III. Next Step

For the next year or so most available energy will be required to implement existing low-income projects in most countries, involving sites and services, core housing and upgrading. These "pilot projects": should take on even greater importance in the context of increasing support for such activities as the "main stream" shelter activities being promoted in each country.

IV

I. INTRODUCTION

Since World War II, population growth rates in the five republics of Central America - Costa Rica, El Salvador, Guatemala, Honduras and Nicaragua - have been among the highest in the Americas. From 1980 to 2000 the total population of the region is expected to almost double, from 20 to 36 million.

As a result of rapid population growth traditional ways of life have changed. The share of people able to make a livelihood from subsistence agriculture has dwindled from about two-thirds in thirty years. Major urban areas have grown at an accelerated rate, absorbing the sons and daughters of small farmers and landless peasants who are compelled to come to the cities to earn a living. The region's urban population, which has grown from one-fourth of the total populace in 1950 to 40% in 1980, is projected to encompass half the total populace by the end of the century.

The provision of employment, urban services and housing has lagged far behind population growth. Overcrowded, deteriorating rooming houses in central cities, squatter settlements on precarious ravines and river banks, illegal subdivisions in outlying areas and makeshift semi-rural settlements on the urban periphery bear testimony to urbanization fueled by demographic and economic forces with little government guidance and support. Governments throughout the region face the prospect of continued rapid urban growth. Effective policies will establish means of meeting the needs of expanding impoverished segments of the population within available resources.

This report addresses a limited facet of such a policy. Its purpose is to (1) analyze and project the order of magnitude of the need for investment in basic shelter for the share of Central America's population whose housing needs are not fully met under current market conditions; (2) evaluate how much housing can be purchased for an investment commensurate with need; and (3) analyze the appropriate size of an investment matching the need in the macro-context of the region's economy. The report does not address the detailed effects and implications of a basic shelter program on the economy, nor does it analyze the ability of existing institutions in the five countries to implement such a program. However, the analysis of need can be seen as a necessary first step toward a more comprehensive and long range housing strategy in Central America

The concept for estimating the order of magnitude of need for basic shelter follows that used by Anthony A. Churchill in his recent paper Basic Needs in Shelter.^{1/} In this paper the concept of basic needs is primarily defined by value judgments about the desirability of consuming a certain bundle of goods and services defined as "basic". Under this concept "basic" can never be defined in an absolute sense.^{2/} It further postulates that an explicit recognition of the relativity and value judgments involved in defining basic needs will help to avoid the futile pursuit of absolute standards and allow more flexible treatment of the alternatives and tradeoffs in the package of goods and services considered to be necessary or desirable.

^{1/} Churchill, Anthony A., Basic Needs in Shelter, The World Bank, Urban Project Department, unpublished, April, 1979

^{2/} Ibid., p. 1

Applying this concept of basic needs to the bundle of services defined as shelter, the approach relies on historical experience which shows that adequate and acceptable shelter solutions can be provided in most developing countries, for all except perhaps the lowest 10% of the income distribution, at a cost not exceeding the share of income that poorer households normally spend on shelter services. Conversely, it demonstrates that lower income groups can and are willing to spend a sufficient portion of their limited income for secure and sanitary shelter and that income is rarely the paramount constraint in the provision of adequate shelter. Given this experience the approach assumes that programs for meeting basic shelter needs could and should be self-supporting.

Based on these assumptions, the basic needs for shelter can be met adequately for all but the poorest of the poor. The widespread lack of acceptable shelter in developing countries can only be explained by the failure of the supply system. Institutional constraints on the supply of land, public services and financing as well as excessively high standards have driven the cost of adequate shelter beyond the reach of a large share of the population.

Following the general approach and findings of Churchill's analysis, the hypothesis of this study is that the five Central American countries can meet their basic needs for shelter within the limits of available resources.

Using the best available data and a careful method for comparing demand and supply information this hypothesis was confirmed by this study. The methodology as formulated by Abeles & Schwartz consultants collaborating with Office of Housing staff, and the results are presented in three main parts:

- Projected need for investment in basic shelter;
- Affordability of basic shelter; and
- Analysis of the investment needed for basic shelter.

THE PROJECTED NEED FOR INVESTMENT IN BASIC SHELTER

Approach

Definitions

This study defines shelter as a cumulative bundle of goods and services that is needed or desirable for human habitation. It considers these services in a certain order of presumed importance: (1) security of tenure on a site of minimum size; (2) a minimum service package for that site, including site preparation, an adequate system of vehicular and pedestrian access and a water supply and waste disposal system meeting minimum requirements; (3) a basic unit of minimum size; (4) service improvements, including water, sewer and electric service connections to the site; (5) bedrooms of minimum size; and (6) further additions and improvements.

The term basic shelter refers to shelter solutions that can or could be afforded - without subsidies - by households whose needs for the first five components of this bundle (excluding only further additions and improvements) are

not fully served under current market conditions. These households are called the target group.^{1/}

The target group consists of two segments: (1) the full need segment comprises those without any shelter plus those who live - or will live - in already existing shelter that cannot be upgraded; and (2) the partial need segment includes all those who live - or will live - in already existing shelter that can be upgraded.

As socio-economic conditions vary geographically by rural, non-metropolitan urban and metropolitan areas all projections are based on these three categories, referred to as sectors.

The analysis period of this study covers the remainder of this century. Five data points marking this period are the calendar years 1980, 1985, 1990, 1995 and 2000.

Since the most recent income and housing census information for the five Central American countries is for the early or mid-1970's, 1975 was used as the base year for defining certain variables, such as the relative size of the target group and the relationships between per capita incomes in the three sectors.

All monetary estimates are expressed in constant 1980 \$CA (Central American pesos). One \$CA equals one US\$.^{2/}

CRITERIA FOR ESTIMATING TARGET GROUP SIZE

Two criteria served as guides for estimating the relative size of the target group in the base year: (1) The share of the entire occupied housing inventory classified as inadequate, such as rooming houses with shared sanitary facilities and shacks; and (2) The share of the inventory not classified as inadequate but lacking a sufficient waste disposal system. An adequate rural waste disposal system was defined as any system for the exclusive use of the dwelling unit and an urban system as a flush toilet for the exclusive use of the unit.

In El Salvador, Guatemala, Honduras and Nicaragua between 81% and 90% of the rural homes did not meet these criteria.^{3/} Only in Costa Rica - as a result of a large-scale rural latrine program - was it much lower (64%). In all five countries between 63% and 71% of the urban dwellings did not meet these criteria in the base year.

^{1/} It should be noted that this definition of the target group is much broader than the definition used in Churchill's paper. Churchill estimated order of magnitude of basic shelter needs for the population with household incomes below the poverty threshold.

^{2/} The monetary unit \$CA is used within the Central American Common Market.

^{3/} For detailed data see Annex I-B, Note 4a.

For the purpose of this study the selected criteria are sufficient to indicate the order of magnitude of the share of the housing inventory occupied by the target group. Based on the data the relative share of the target group in 1975 was estimated at 85% of the rural and 70% of the urban population for all five countries.^{1/}

ASSUMPTIONS

The conceptual approach for projecting the target group's need for basic shelter rests on three main assumptions:

Throughout the analysis period the relative size of the target group is determined by the real income of its most prosperous households. By definition, the basic shelter needs of households with higher incomes are presumed to be fully satisfied. Consequently, the size of the target group increases as its real income declines and decreases as real income rises. Thus, the average income of the highest percentile in the target group in the base year (1975) is used as a constant threshold income for projecting the relative size of the target group through the analysis period based on real income changes. This threshold income can be estimated based on available income and income distribution data.

A second assumption was needed to disaggregate national personal income by sector as a basis for the projections of effective demand. Available sources barely suffice for estimating per capita personal income by sector, much less permit conclusions about shifts in the relationships between the per capita incomes in the rural, non-metropolitan urban and metropolitan sectors. Therefore, the relationships among per capita incomes at or about the base year was assumed to remain constant over the analysis period.^{2/}

A third assumption was needed to arrive at a consistent annual distribution of the need for basic shelter. It was assumed that the full need segment (those in need of new shelter) during each year consists of the target households formed during the year plus a constant share (one-twentieth) of the households living in already existing shelter that cannot be upgraded. Similarly it was assumed that the partial need segment (those in need of upgrading) in any year consists of one-twentieth of the households living in shelter presently occupied by the target group that can be upgraded.

MODEL FOR PROJECTING NEED

The model for projecting need consists of five principal steps:

- (1) In accordance with the first two stated assumptions two sets of constant data are calculated:
 - The average household income in the highest percentile of the target group (threshold income) is estimated for the base year (1975). The estimates of need for basic shelter investment throughout the study are limited to households with incomes below this threshold.

^{1/} If the target group was defined, as in Churchill's paper, as the population below the poverty threshold and if the World Bank's definition of the relative poverty threshold (one-third of per capita income) was applied, the relative size of the target group would be much smaller, amounting to only about one-fifth of the population

^{2/} It should be noted that this assumption does not affect changes in the relationship between the aggregate sectoral incomes due to population shifts

- Using available household income surveys the relationships between rural, non-metropolitan urban and metropolitan per capita income are estimated. As stated, these relationships are assumed to be constant.
- (2) The number of target households in need of new shelter (full need) and upgrading (partial need) is estimated for each data point. This step involves the following:
- Based on population and household size forecasts the total number of households is projected;
 - Using national personal income and household projections and the (constant) relationship between the per capita incomes in the rural non-metropolitan urban and metropolitan sector the total personal income by sector is estimated;
 - Using income distribution data the total personal income by sector is disaggregated by decile;
 - Based on changes in (real) household income and the estimated income in the highest percentile of the target group (threshold income) the relative and absolute size of the target group at each data point is estimated;
 - The number of households in need of new shelter (full need segment) is estimated for each data point by adding the annual increase within the target group (new household formation) to the average annual share (one-twentieth) of the target households living in already existing shelter that cannot be upgraded;
 - The number of households in need of upgrading (partial need segment) is estimated for each data point by assigning equal annual shares (one-twentieth) of the target households living in already existing shelter that can be upgraded.
- (3) The average annual amount that target households are expected to be able and willing to pay for basic shelter is projected for each data point and decile by applying information on the share of household income available for such payments.
- (4) The average need per decile for a basic shelter investment is calculated by capitalizing the average housing payment estimated in Step (3); and
- (5) The total need for basic shelter investment is calculated as the sum of the products of the average need per decile and the number of target households in each decile.

DATA SOURCES

Annex I presents the methodology for data selection as well as a complete, annotated list of the selected data and sources on which the projections are based.

To ascertain the most reliable and credible information the UN Department of International Economic and Social Affairs and the World Bank were consulted to obtain their most recent demographic projections and national accounts data. During one-week

field visits to each of the five countries this information was presented to knowledgeable government officials for review and comment. Depending on the comments obtained during the field visits the pre-selected data were replaced by alternative sources or confirmed.

PRINCIPAL DATA ISSUES

The two main issues associated with the selected information are the reliability of existing income distribution data and the difficulty of projecting national income growth.

Income Distribution Data

The most recent, carefully designed and documented survey of household income was conducted by the Government of El Salvador between 1976 and 1977.^{1/} The last survey for Costa Rica was conducted by a University team in 1971.^{2/} While these two sources inspire some confidence in the relevance and accuracy of their findings, the best available sources for Guatemala and Honduras are unquestionably outdated. Moreover, the scope of the last survey for Guatemala was limited to some urban areas.

Information on the income distribution in Nicaragua is the most fragmentary in Central America. The best available source is a 1977 elaboration of diverse sources by the then National Housing Bank.

Since the projections of need for basic shelter in this study are based on macroeconomic aggregate national income growth projections, national personal income estimates based on the household income surveys and population data for the year preceding each survey were compared to the corresponding reported national income aggregates. Details of this comparison are presented in the Annex.^{3/}

National personal income based on macroeconomic data was found to exceed the estimate of aggregate personal income based on income surveys by 16% in El Salvador, 20% in Costa Rica and Guatemala and 30% in Honduras.^{4/} This analysis suggests that between one-sixth and one-third of household income was not reported in the household surveys. Quite possibly, underreporting is highest in the highest income groups. Thus, the actual income distribution during the survey years used for this study may have been considerably more uneven or skewed than the distribution shown by the data.

Even if the income distribution information accurately reflected conditions at the time of the survey, it does not support the assumption that the distribution of income has remained unchanged, particularly if the last survey is more than a decade old. Indeed, there is evidence that in some countries the distribution became more uneven during the 1970's.

^{1/} E19

^{2/} C2

^{3/} Annex I-B, Note 2

^{4/} The household income data for Nicaragua do not permit this analysis.

Evidence presented for Nicaragua in a recent report by the United Nations Economic Commission for Latin America (CEPAL) shows that the average real salary income in Nicaragua declined between 1970 and 1975 by 14%.^{1/}

The only systematic study of changes in income distribution in Central America was conducted in Costa Rica by the University of Costa Rica, School of Economic and Social Sciences.^{2/} Comparing the income surveys of 1961 and 1971 in the light of an official government policy of achieving a more equitable income distribution, the study concluded that simply maintaining the existing distributions would itself be an achievement.

Despite the questions raised the information on income distribution was the best available source for the projections in this study. The sensitivity of the need for basic shelter to future changes in the income distribution was tested by applying alternative sets of projections of the share of the national income to be earned by the target group.

NATIONAL INCOME GROWTH PROJECTIONS

Since national income cannot be projected with the same confidence as population growth and because of the questions previously raised about income distribution, this study tested the sensitivity of the need for basic shelter for three alternative national income growth scenarios:

- (1) The scenario for a high growth rate of national personal income is based on the future average Gross Domestic Product (GDP) growth rates estimated by World Bank country economists.^{3/}

The assumption underlying this scenario is that GDP will grow at these rates, that the income distribution will not change and, therefore, that the target group will continue receiving the same relative share of a growing pie.^{4/}

- (2) The scenario for a low growth rate of national personal income is based on one-half the growth rates of the first scenario. It would apply in two cases: (a) national income grows as projected for the first scenario but the relative share earned by the target group declines sharply; and (b) Gross Domestic Product grows at a much slower pace and the distribution of income remains unchanged.
- (3) The third alternative - termed a "break-even" scenario - falls somewhere between the high and low growth scenarios. It is defined as the amount of growth in national personal income needed to maintain the estimated current per capita income levels in the rural, non-metropolitan urban and metropolitan sector. It was calculated on the basis of the (constant) relationships between rural, non-metropolitan urban and metropolitan per capita incomes and the population growth projections for the five data points.

^{1/} N9-6

^{2/} C3

^{3/} As shown in Annex I-B, standard United Nations practices were used to convert GDP to national personal income.

^{4/} By definition, the relative size of the target group gradually diminishes in this scenario.

This scenario tests the sensitivity of the need projections in the following two situations: (a) The relative share of national personal income accruing to the target group grows at the rate of sectorial population growth even though GDP grows at a faster pace, resulting in a more skewed income distribution; or (b) The overall economy grows only at the rate required to maintain existing real income levels in all sectors, and the income distribution remains unchanged.

COMPUTER ANALYSIS

The main steps of the model used to estimate the need for basic shelter were programmed for computer processing. The computer program is presented in the Annex to this report to permit easy recalculation if and when more adequate sources become available. Figure 1 is a flow diagram showing the steps of the computer program.

PROJECTIONS - ORDERS OF MAGNITUDE^{1/}

Changes in the Relative Size of the Target Group

The target group was uniformly defined to comprise 85% of the rural and 70% of the urban population in the base year (1975).

Table 1 shows that under the high national income growth scenario the target group will shrink by the year 2000 to between 62% and 76% of the rural and between 43% and 58% of the urban population with an overall average of about 65% for the entire region. Under the break-even scenario the target group maintains by definition its relative size by sector; however, because of rural-urban migration and the estimated smaller relative size of the target group in urban areas, the overall size of the target group would still shrink slightly, from about 76% in 1980 to 74% in 2000 under this scenario. Except for Costa Rica, under the low growth scenario the relative size of the target group would dramatically increase to more than 80% of the region's total population during the next 20 years.

PROJECTED TOTAL NEED

The total need for basic shelter in all five countries for the 20-year period ranges from \$CA 11 billion under the high growth scenario (shrinking relative size of the target group) to \$CA 16 billion under the low growth scenario (growing relative target group size) with \$CA 14 billion under the break-even scenario (stable relative size of the target group). Table 2 presents a summary of these projections by country and sector.

Table 2 also shows that the need for basic shelter investment of the population with household incomes below the median will be much smaller, amounting to approximately \$CA 8 billion over the 20-year period, regardless of national income growth scenario.^{2/}

About 60% of the projected need is metropolitan, another 23% non-metropolitan urban and only 17% rural. However, Guatemala's metropolitan share embraces as much as 70% of that country's total need.

^{1/}The projections are presented in full detail in Annex I-C.

^{2/}USAID assisted programs generally aim at the population with household incomes below the median.

FIGURE 1

FLOW DIAGRAM OF THE COMPUTER PROGRAM

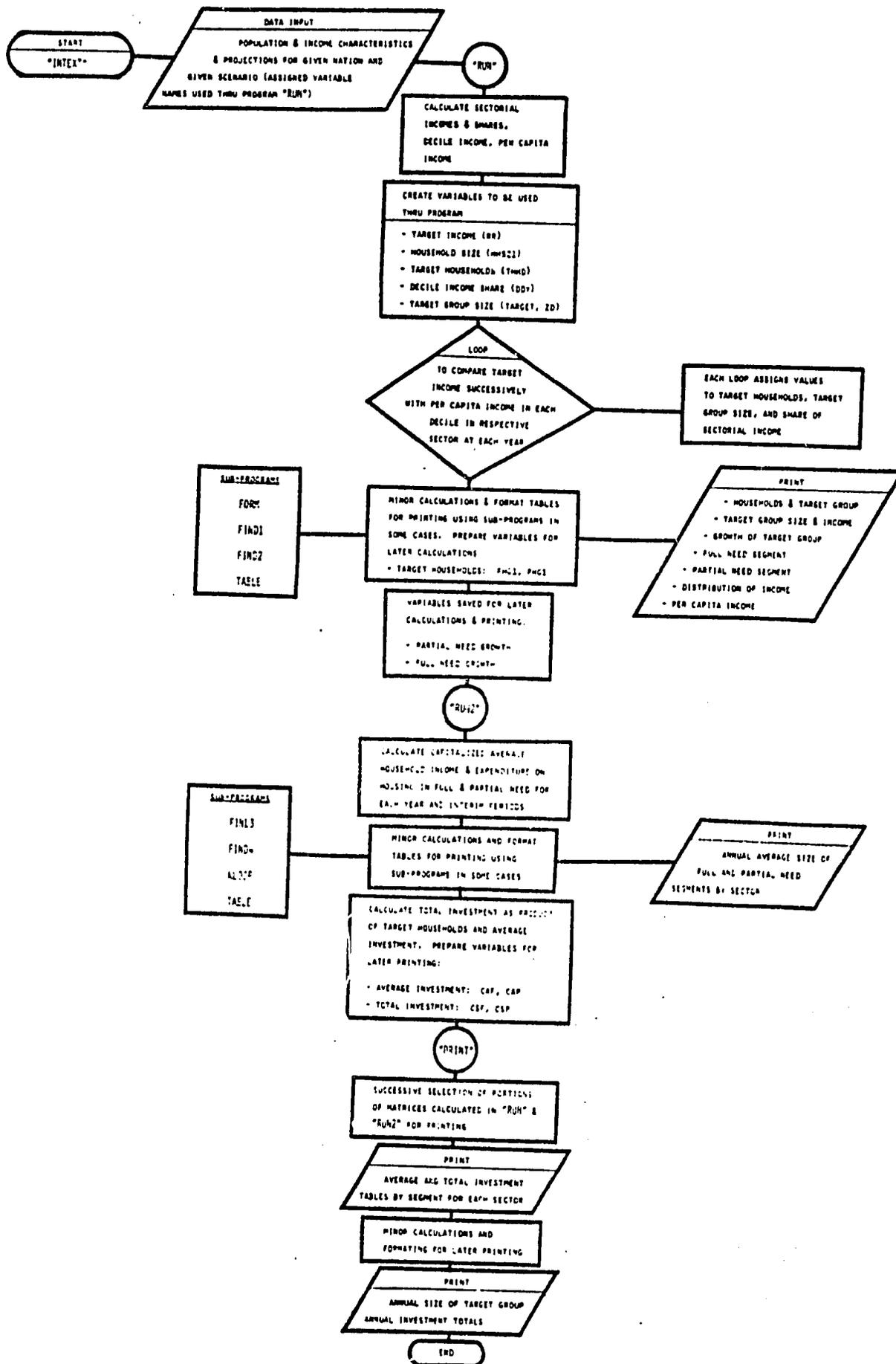


TABLE 1
CENTRAL AMERICA
CHANGES IN THE RELATIVE SIZE OF THE TARGET GROUP
BY COUNTRY, SECTOR AND NATIONAL INCOME GROWTH SCENARIO
1981 - 2000

COUNTRY AND SECTOR	TARGET GROUP HOUSEHOLDS AS A PERCENT OF ALL HOUSEHOLDS				
	1975 ^{1/}	1980 ^{2/}	HIGH GROWTH	2000 ^{3/} BREAK-EVEN	LOW GROWTH
COSTA RICA					
Total		74	52	72	74
Rural	85	80	62	80	83
Non-Metropolitan Urban	70	67	47	67	70
Metropolitan	70	64	43	64	66
EL SALVADOR					
Total		78	60	78	83
Rural	85	84	66	84	86
Non-Metropolitan Urban	70	69	56	69	78
Metropolitan	70	67	46	67	77
GUATEMALA					
Total		76	66	74	84
Rural	85	82	75	82	89
Non-Metropolitan Urban	70	66	55	66	80
Metropolitan	70	66	57	66	78
HONDURAS					
Total		76	66	74	82
Rural	85	82	76	82	87
Non-Metropolitan Urban	70	67	58	67	76
Metropolitan	70	66	57	66	77
NICARAGUA					
Total		76	57	74	80
Rural	85	83	65	83	87
Non-Metropolitan Urban	70	68	45	68	76
Metropolitan	70	69	57	69	73

SOURCE: Annex I-D

NOTES:

^{1/}Base year estimates (Annex I-B, Note 4)

^{2/}Projection for 1980, based on base year estimates, projected GDP in 1980 and assumption of a stable income distribution

^{3/}Projections for 2000 based on three national income growth/distribution scenarios

TABLE 2
CENTRAL AMERICA

PROJECTED TOTAL INVESTMENT FOR BASIC SHELTER NEEDS
BY COUNTRY, SECTOR AND NATIONAL INCOME GROWTH SCENARIO
1981 - 2000
1980 \$CA MILLIONS

COUNTRY AND SECTOR	HIGH GROWTH			BREAK-EVEN			LOW GROWTH		
	TOTAL SCA	UP TO MEDIAN SCA	%	TOTAL SCA	UP TO MEDIAN SCA	%	TOTAL SCA	UP TO MEDIAN SCA	%
CENTRAL AMERICA									
Total	11,091.8	7,480.2	67	14,394.2	7,968.4	55	15,921.8	7,594.7	48
Rural	1,846.1	842.3	46	2,252.0	921.0	41	2,300.0	871.5	38
Non-Metropolitan Urban	2,585.0	1,787.8	69	3,499.8	2,015.1	58	3,926.9	1,966.0	50
Metropolitan	6,662.7	4,850.1	73	8,642.6	5,032.2	58	9,694.8	4,757.2	49
COSTA RICA									
Total	2,059.0	1,435.9	70	3,185.2	1,772.9	56	3,305.2	1,737.0	53
Rural	416.7	195.8	47	552.8	243.2	44	571.2	239.9	42
Non-Metropolitan Urban	521.9	354.9	68	830.9	448.7	54	847.7	440.8	52
Metropolitan	1,120.5	885.2	79	1,801.6	1,081.0	60	1,886.2	1,056.3	56
EL SALVADOR									
Total	1,406.5	1,037.6	74	2,091.0	1,131.9	54	2,341.2	1,107.8	47
Rural	462.6	231.3	50	604.0	253.7	42	587.9	235.2	40
Non-Metropolitan Urban	267.2	190.6	69	350.2	196.1	56	413.8	202.8	49
Metropolitan	676.6	615.7	91	1,136.8	682.1	60	1,339.5	669.8	50
GUATEMALA									
Total	5,119.2	3,457.2	68	6,024.5	3,414.4	57	6,943.2	3,225.8	46
Rural	586.7	246.4	42	638.5	242.6	38	682.3	225.2	33
Non-Metropolitan Urban	950.8	703.6	74	1,195.6	741.9	62	1,448.8	738.9	51
Metropolitan	3,581.7	2,507.2	70	4,189.4	2,429.9	58	4,812.1	2,261.7	47
HONDURAS									
Total	1,473.0	907.5	62	1,707.8	890.2	52	1,883.1	806.2	43
Rural	195.0	80.0	41	205.2	75.9	37	205.2	69.8	34
Non-Metropolitan Urban	531.9	335.1	63	596.2	333.9	56	633.3	297.7	47
Metropolitan	746.1	492.4	66	906.5	480.4	53	1,044.6	438.7	42
NICARAGUA									
Total	1,036.1	642.0	62	1,385.7	759.0	56	1,449.1	717.9	50
Rural	185.1	88.8	48	251.5	105.6	42	253.4	101.4	40
Non-Metropolitan Urban	313.2	203.6	65	525.9	294.5	56	583.3	285.8	49
Metropolitan	537.8	349.6	65	608.3	358.9	59	612.4	330.7	54

SOURCE: Annex I-D

NEW SHELTER AND UPGRADING

As shown in Table 3, about half the total target group will need shelter and half upgrading programs over the analysis period. However, those in need of new shelter (full need segment) would consume close to two-thirds of the total investment. In the metropolitan areas families in need of new shelter predominate, encompassing 60% of the total target group and account for about 70% of the need for investment. In both non-metropolitan urban and rural areas the households in need of upgrading (partial need segment) represent more than half the target group with about 45% of the need.

AVERAGE ANNUAL NEED DURING THE NEXT FIVE YEARS

Over the next five-year period the average need for basic shelter (under the break-even scenario) will amount to about \$CA 600 million annually, again with about two-thirds for new shelter and one-third for upgrading.

As shown on Table 4, the projected yearly totals range from about \$CA 60 million each for Honduras and Nicaragua to nearly \$CA 100 million for El Salvador, \$CA 150 million for Costa Rica and \$CA 240 million for Guatemala.

TABLE 3
CENTRAL AMERICA

PROJECTED TOTAL INVESTMENT FOR BASIC SHELTER NEEDS
AND NUMBER OF HOUSEHOLDS TO BE SERVED
BY COUNTRY, SECTOR AND TYPE OF NEED
1981 - 2000
BREAK-EVEN SCENARIO
1980 \$CA MILLIONS

COUNTRY AND SECTOR	TOTAL		NEW SHELTER		UPGRADING	
	NUMBER OF HOUSEHOLDS	INVESTMENT \$CA millions	NUMBER OF HOUSEHOLDS	INVESTMENT \$CA millions	NUMBER OF HOUSEHOLDS	INVESTMENT \$CA millions
CENTRAL AMERICA						
Total	5,835,000	14,395	2,933,000	9,281	2,904,000	5,114
Rural	3,269,000	2,252	1,588,000	1,266	1,681,000	986
Non-Metropolitan Urban	1,058,000	3,500	452,000	1,834	606,000	1,666
Metropolitan	1,508,000	8,643	893,000	6,181	617,000	2,462
COSTA RICA						
Total	617,000	3,185	306,000	2,344	311,000	842
Rural	304,000	553	105,000	286	199,000	267
Non-Metropolitan Urban	110,000	831	61,000	591	49,000	240
Metropolitan	203,000	1,802	140,000	1,467	63,000	335
EL SALVADOR						
Total	1,337,000	2,091	701,000	1,497	636,000	594
Rural	850,000	604	438,000	410	412,000	194
Non-Metropolitan Urban	206,000	350	82,000	199	124,000	151
Metropolitan	281,000	1,137	181,000	888	100,000	249
GUATEMALA						
Total	2,145,000	6,025	1,094,000	4,685	1,052,000	1,339
Rural	1,248,000	639	513,000	371	735,000	267
Non-Metropolitan Urban	312,000	1,197	154,000	788	158,000	409
Metropolitan	585,000	4,189	427,000	3,526	159,000	663
HONDURAS						
Total	1,046,000	1,708	499,000	372	547,000	1,335
Rural	552,000	205	347,000	94	205,000	111
Non-Metropolitan Urban	245,000	596	71,000	101	174,000	495
Metropolitan	249,000	907	81,000	177	168,000	729
NICARAGUA						
Total	690,000	1,386	333,000	383	358,000	1,004
Rural	315,000	252	185,000	105	130,000	147
Non-Metropolitan Urban	185,000	526	84,000	155	101,000	371
Metropolitan	190,000	608	64,000	123	127,000	486

SOURCE: Annex I-D

13

CENTRAL AMERICA

PROJECTED AVERAGE ANNUAL INVESTMENT FOR BASIC SHELTER NEEDS
AND NUMBER OF HOUSEHOLDS TO BE SERVED
BY COUNTRY, SECTOR AND TYPE OF NEED
1981 - 1985
BREAK-EVEN SCENARIO
1980 \$CA MILLIONS

COUNTRY AND SECTOR	TOTAL		NEW SHELTER		UPGRADING	
	NUMBER OF HOUSEHOLDS ^{1/}	INVESTMENT \$CA millions	NUMBER OF HOUSEHOLDS ^{1/}	INVESTMENT \$CA millions	NUMBER OF HOUSEHOLDS ^{1/}	INVESTMENT \$CA millions
CENTRAL AMERICA						
Total	259,500	609				
Rural	155,400	114	118,000	421	141,500	189
Non-Metropolitan Urban	46,000	157	21,700	65	94,000	50
Metropolitan	58,000	338	34,800	100	24,300	56
				256	32,300	83
COSTA RICA						
Total	29,300	152				
Rural	16,200	31	13,800	106	15,500	47
Non-Metropolitan Urban	4,900	40	6,200	19	9,900	15
Metropolitan	8,200	78	5,100	27	2,500	13
				60	3,100	19
EL SALVADOR						
Total	59,200	95				
Rural	37,100	27	27,400	64	31,800	31
Non-Metropolitan Urban	10,200	19	16,500	17	20,600	10
Metropolitan	11,900	50	4,000	11	6,200	8
			6,900	36	5,000	13
GUATEMALA						
Total	95,600	239				
Rural	60,600	32	43,000	168	52,600	71
Non-Metropolitan Urban	13,400	52	23,000	18	36,800	14
Metropolitan	21,600	155	5,500	30	7,900	22
			13,700	120	7,900	35
HONDURAS						
Total	45,700	66				
Rural	26,900	10	20,700	46	24,900	19
Non-Metropolitan Urban	10,000	25	9,600	5	17,400	5
Metropolitan	8,800	31	6,400	19	3,500	5
			4,700	22	4,000	9
NICARAGUA						
Total	29,700	57				
Rural	14,600	12	13,100	37	16,700	21
Non-Metropolitan Urban	7,500	21	5,400	6	9,300	6
Metropolitan	7,500	24	3,300	13	4,200	8
			4,400	10	3,200	7

SOURCE: Annex I-D

NOTES:

^{1/}Rounded to nearest 100

14

AFFORDABILITY OF BASIC SHELTER

The purpose of this part is to compare the projected average need for a unit of basic shelter per income decile to the current average costs of the components of a basic shelter bundle to determine just "how much" basic shelter an investment matching the need could purchase.

APPROACH

Definitions

The previous part defined in general the components of a basic shelter bundle. As a basis for estimating costs these components are defined with more technical specificity as follows:

The minimum size of a site in metropolitan areas is defined as 60 square meters (five by twelve meters) and 84 square meters (seven by twelve meters) in non-metropolitan areas.^{1/} Minimum lot size was not defined for rural areas.

A minimum service package includes the following elements:

- (1) Site preparation, consisting of the necessary grading and retaining walls;
- (2) A system of vehicular and pedestrian access meeting minimum requirements; this includes in urban areas a paved access road, gravel streets with an adequate drainage system and paved sidewalks, laid out in a grid of about 110 by 150 meters and, between the streets, paved pedestrian access walks on a three meter right-of-way with adequate storm drainage. For rural areas minimum access requirements were not specified;
- (3) A water supply system meeting minimum requirements; this consists of a standpipe serving 20 to 30 homes in urban areas and in rural areas of any safe water supply from a well or a piped system within reasonable walking distance;
- (4) A waste disposal system meeting minimum requirements defined in all areas as a latrine for the exclusive use of the household;
- (5) In urban areas street lighting every 65 meters.

A basic unit covers 20 square meters (five by four meters), and consists of an adequate foundation, concrete block or brick walls with earthquake reinforcement, a zinc roof with a backyard overhang to protect the laundry area, a cement floor, a metal entrance door, a wooden back door, two louvered aluminum windows and a laundry stone (pila).

Service improvements constitute the following elements:

- (1) A fully adequate water and waste disposal system including a piped water and sanitary sewer connection to the site and installation of three outlets in the unit (flush toilet, shower and laundry stone/sink);
- (2) Electricity service including the connection to the lot, meter and meter base and interior wiring with one overhead light fixture and one convenience outlet; and

^{1/}Local housing officials contacted in the five countries agreed that sites in non-metropolitan urban areas should have at least 84 square meters.

(3) Improvement of vehicular access including street pavement.

Bedrooms of minimum size were defined as measuring twelve square meters (three by four meters), with the same structural specifications as the basic unit, one wooden door, one window and light fixture plus convenience outlet.

Further additions and improvements were defined only for urban areas and include the following:

- (1) In metropolitan areas the differential between a 60 square meter and an 84 square meter site, including the additional infrastructure costs. (In non-metropolitan urban areas the minimum site area already measures 84 square meters);
- (2) A third bedroom or a rental room measuring 20 square meters, and consisting of the same elements as the basic unit plus plumbing and wiring.

The following additional terms denote two main levels or standards of basic shelter:

- (1) The low minimum level of basic shelter was defined for rural areas to include a site and a minimum rural service package, excluding a basic unit. Typically, rural dwellings in Central America are still built by the members of the household with locally available non-cash materials; the rural full minimum level includes, in addition, a basic unit.

In urban areas the minimum level was defined to include security of tenure on a site of minimum size, a minimum urban service package and the materials for a basic unit;^{1/}

- (2) The advanced level/two bedrooms of basic shelter, includes in addition to the minimum level components, labor for the basic unit, service improvements and two bedrooms.^{1/}

The advanced level/three bedrooms was considered only for urban areas. It includes an additional bedroom (or rental room) and, in metropolitan areas, a larger site.

ASSUMPTIONS

Two assumptions were made to analyze the affordability of basic shelter upgrading costs for households in the partial need segment of the target group.

First the need for water, waste disposal and electricity service among those in need of upgrading programs had to be estimated. Housing census data on the share of the total housing inventory with different levels of water and waste disposal service as well as electricity are not cross-referenced. Census data do not allow measurement of the share of the housing inventory that satisfies certain water, sewer and electricity service criteria in the same unit. To permit such aggregate

^{1/}In the case of upgrading programs a small home improvement loan.

estimates of service it was assumed that the availability of each type of service originates with the most prosperous households. This assumption implies that the cumulative lack of services is concentrated at the lower end of the income distribution, a situation that appears sufficiently plausible even on the basis of impressionistic evidence. Annex IV presents the approach used for these estimates.

A second assumption was that, since a growing share of the urban target group lives in squatter settlements and illegal subdivisions lacking infrastructure improvements, the costs of improved vehicular and pedestrian access and storm drainage to urban households are equivalent to those of providing an access system to families in full need of new shelter.^{1/}

METHOD FOR ANALYZING AFFORDABILITY

The method used to analyze the affordability of basic shelter contains four main steps:

First, the average costs of the individual components of the basic shelter bundle were estimated by country and sector. This step is documented in Annex III.

Second, the average investment needed for upgrading was estimated by decile for households in the partial need segment. This step is documented in Annex IV.

Third, the cumulative cost of the components of the basic shelter bundle is compared to the average effective demand of the households in need of new shelter per decile of the income distribution to determine how much basic shelter the average household in each decile can afford. This step is documented in Annex V.

Fourth, the estimated average investment needed for upgrading by decile (Step 2) is compared to the average need of the households in need of upgrading by decile to determine how much basic shelter upgrading the average household in each decile can afford. This step is documented in Annex VI.

DATA SOURCES

The most useful source information on supply costs were interviews with knowledgeable public and private officials in the five countries. Typically, the information obtained at these interviews was based on specific active or recent projects.

AFFORDABILITY

New Shelter

Annex V shows the cumulative bundle of basic shelter components that the average household in each decile is estimated to be able to afford under each national income growth scenario in 1990. Figure 2 illustrates the results of this analysis under the break-even scenario for each country and Table 5 presents a summary of the share of the population that is able to afford the different levels of basic shelter defined for this study.

^{1/}This assumption leads to an overestimation of the upgrading needs of existing target group housing with adequate vehicular and pedestrian access.

FIGURE 2

CENTRAL AMERICA 1990

HOUSEHOLD INCOME, AFFORDABILITY OF HOUSING INVESTMENT AND BASIC SHELTER COSTS

EL SALVADOR

SCA 1,000's

ANNUAL HOUSEHOLD INCOME

MAX. AVERAGE INVESTMENT

RURAL

NON-METROPOLITAN

METROPOLITAN

URBAN

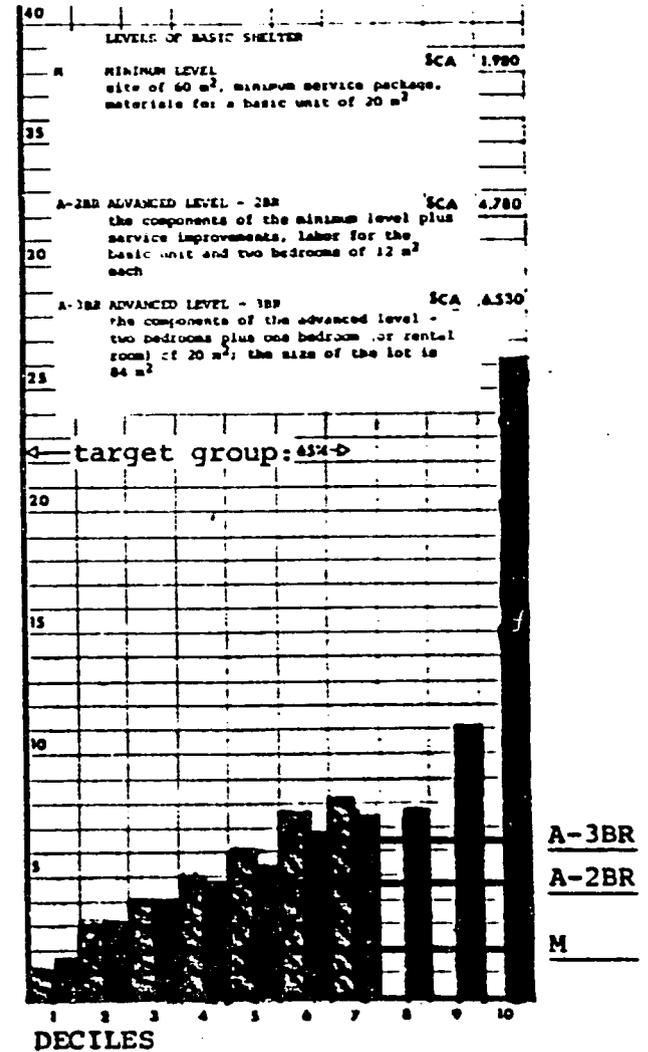
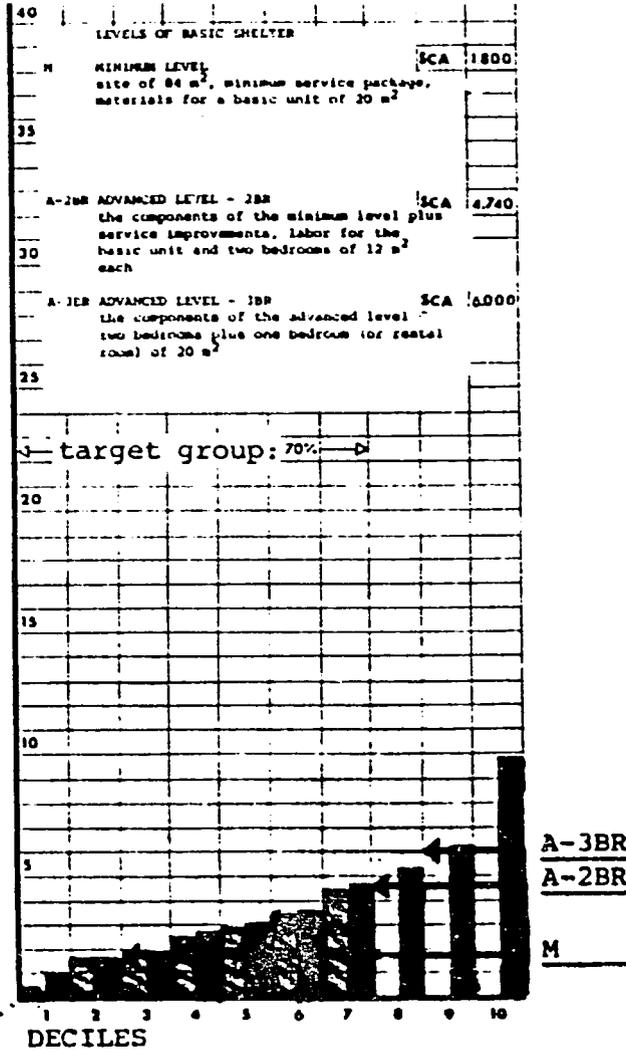
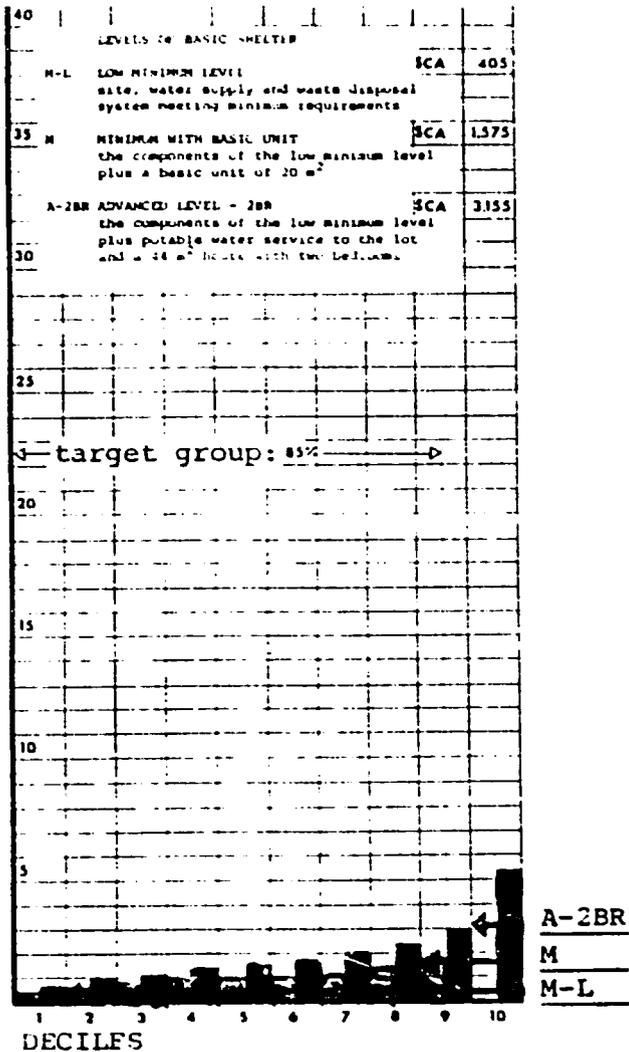


FIGURE 2

CENTRAL AMERICA 1990

HOUSEHOLD INCOME, AFFORDABILITY OF HOUSING INVESTMENT AND BASIC SHELTER COSTS

COSTA RICA

\$CA 1,000's

RURAL

ANNUAL HOUSEHOLD INCOME

NON-METROPOLITAN

URBAN

MAX. AVERAGE INVESTMENT

METROPOLITAN

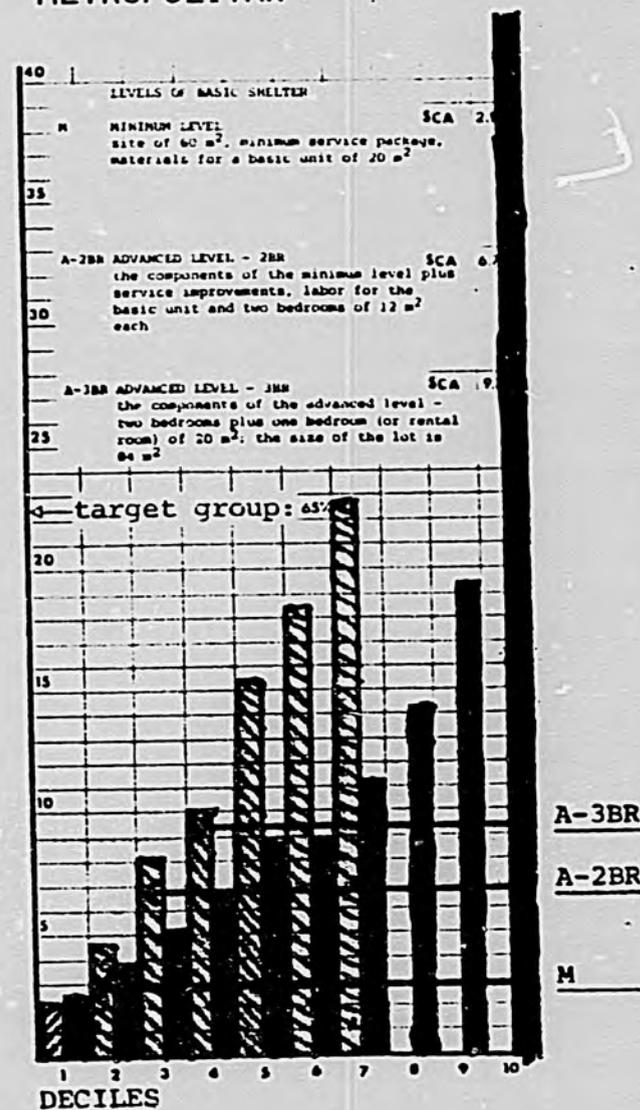
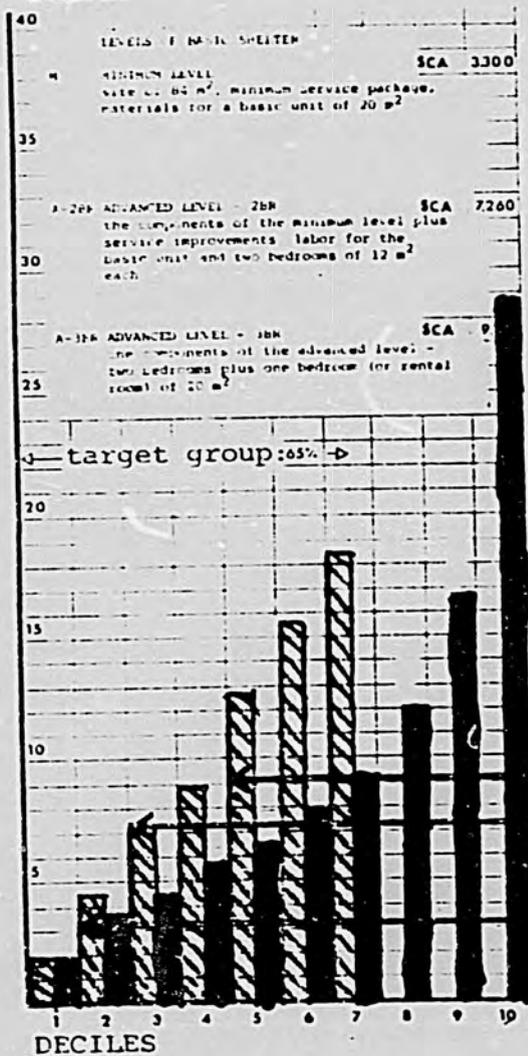
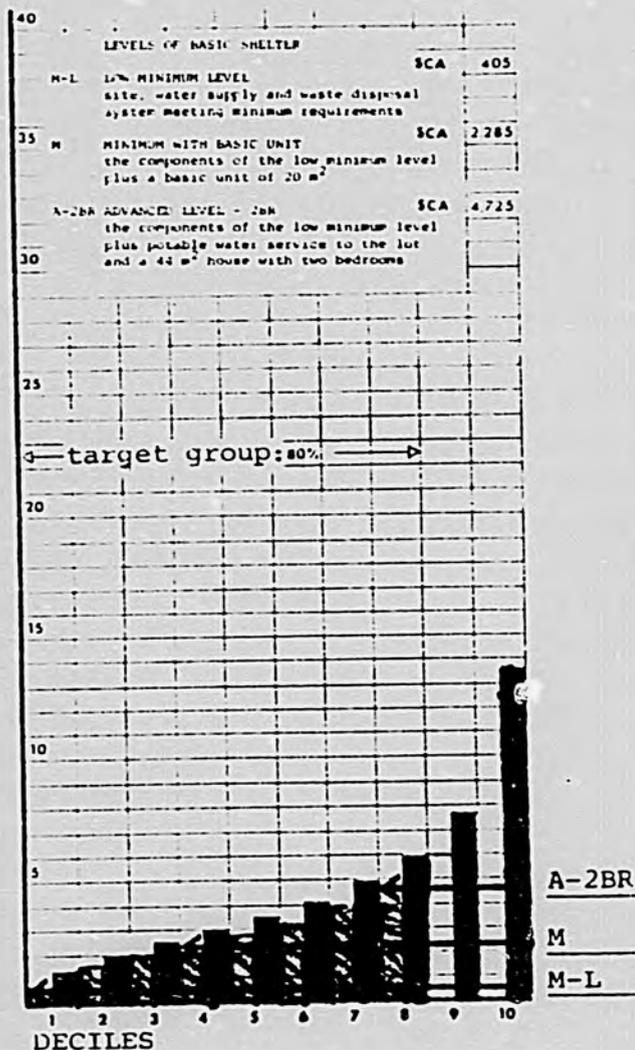


FIGURE 2
CENTRAL AMERICA 1990
HOUSEHOLD INCOME, AFFORDABILITY OF HOUSING INVESTMENT AND BASIC SHELTER COSTS

GUATEMALA

SCA 1,000's

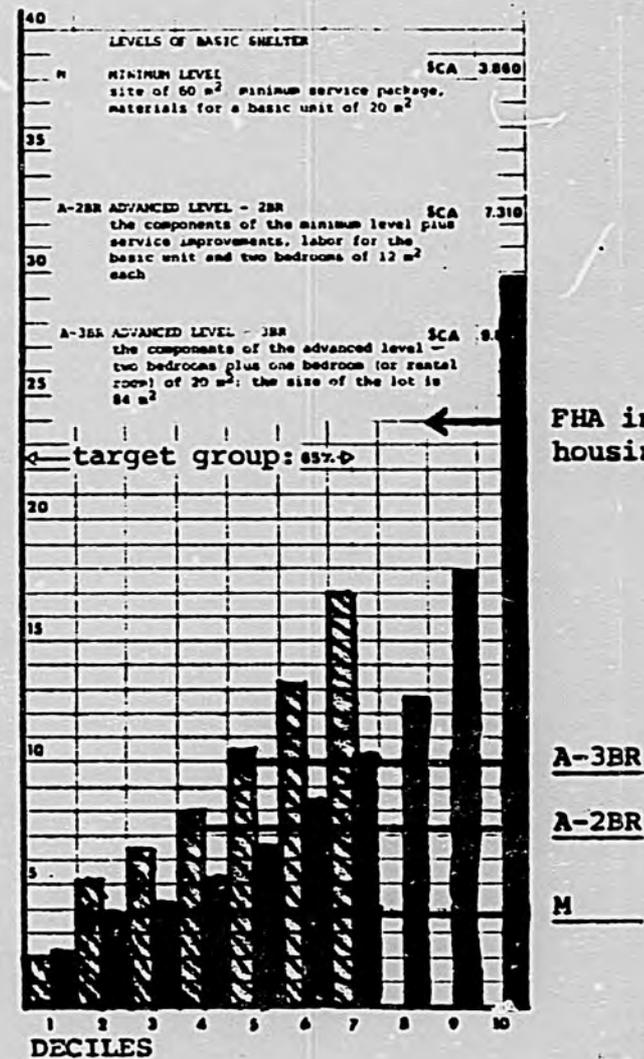
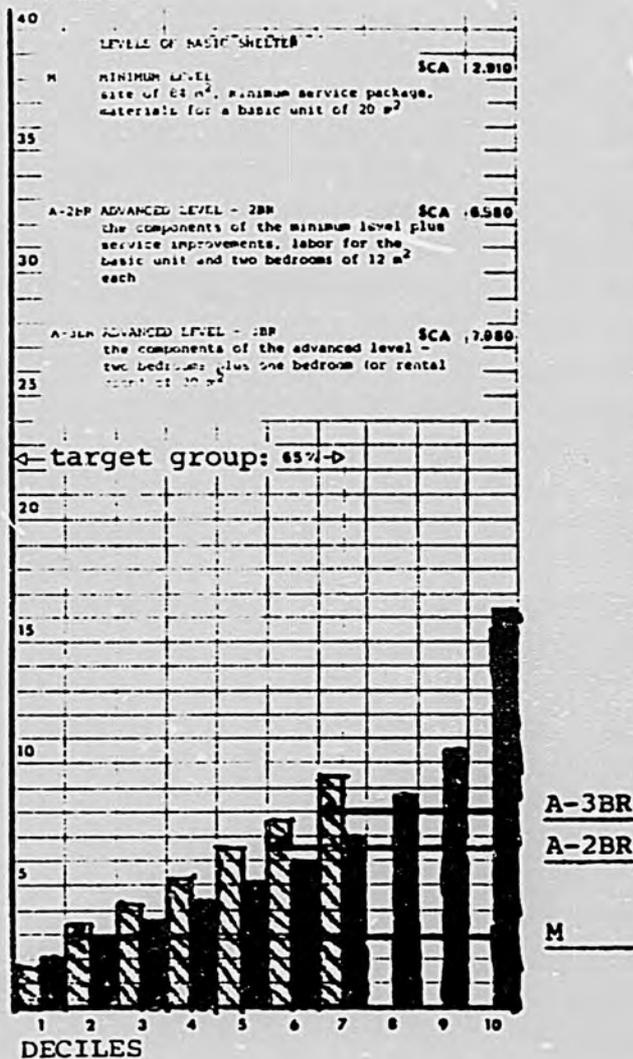
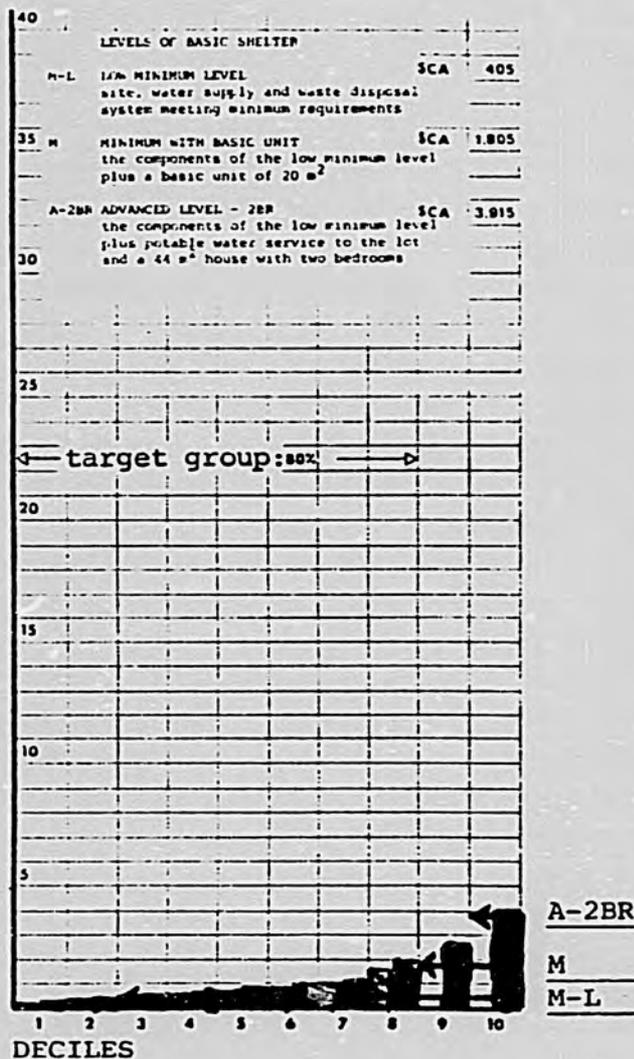
ANNUAL HOUSEHOLD INCOME

MAX. AVERAGE INVESTMENT

RURAL

NON-METROPOLITAN
URBAN

METROPOLITAN



- 20 -

20

FIGURE 2

CENTRAL AMERICA 1990

HOUSEHOLD INCOME, AFFORDABILITY OF HOUSING INVESTMENT AND BASIC SHELTER COSTS

HONDURAS

\$CA 1,000's

RURAL

ANNUAL HOUSEHOLD INCOME

MAX. AVERAGE INVESTMENT

NON-METROPOLITAN

METROPOLITAN

URBAN

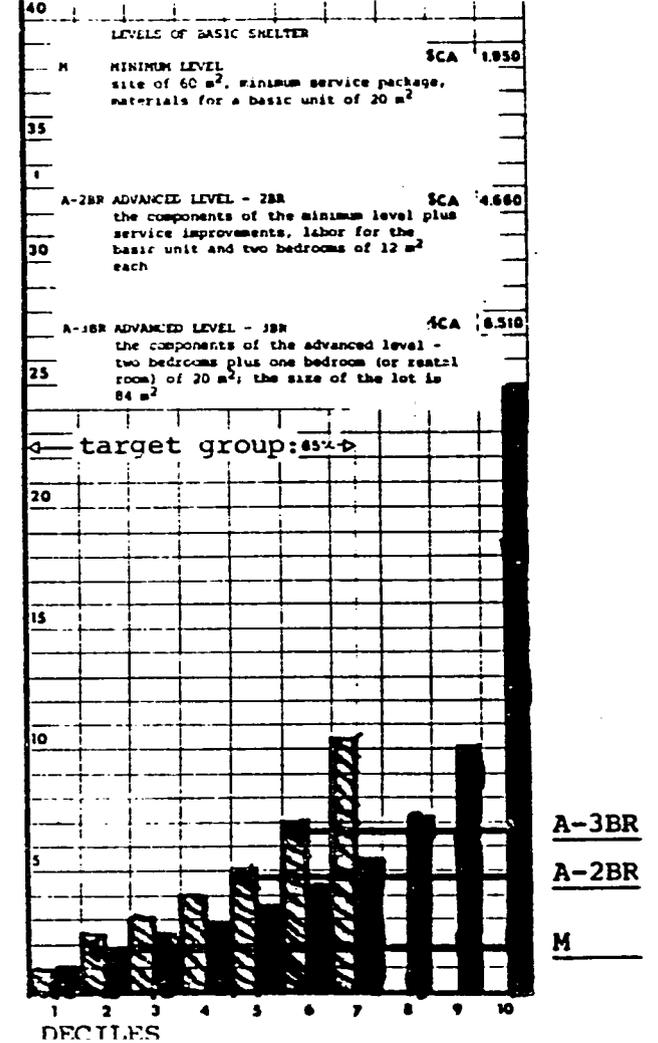
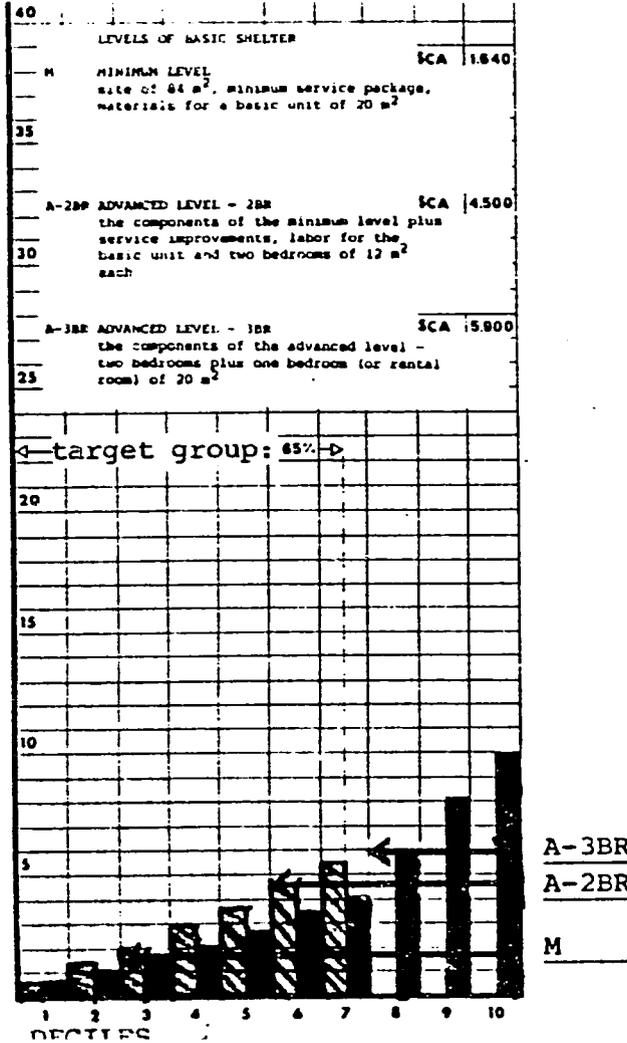
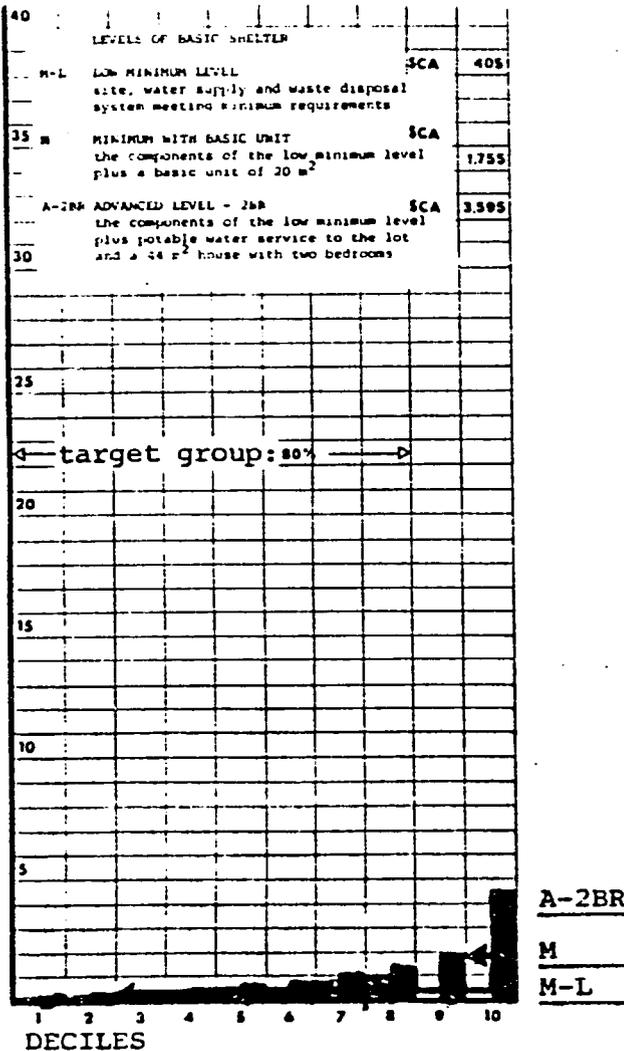


FIGURE 2

CENTRAL AMERICA 1990

HOUSEHOLD INCOME, AFFORDABILITY OF HOUSING INVESTMENT AND BASIC SHELTER COSTS

NICARAGUA

SCA 1,000's

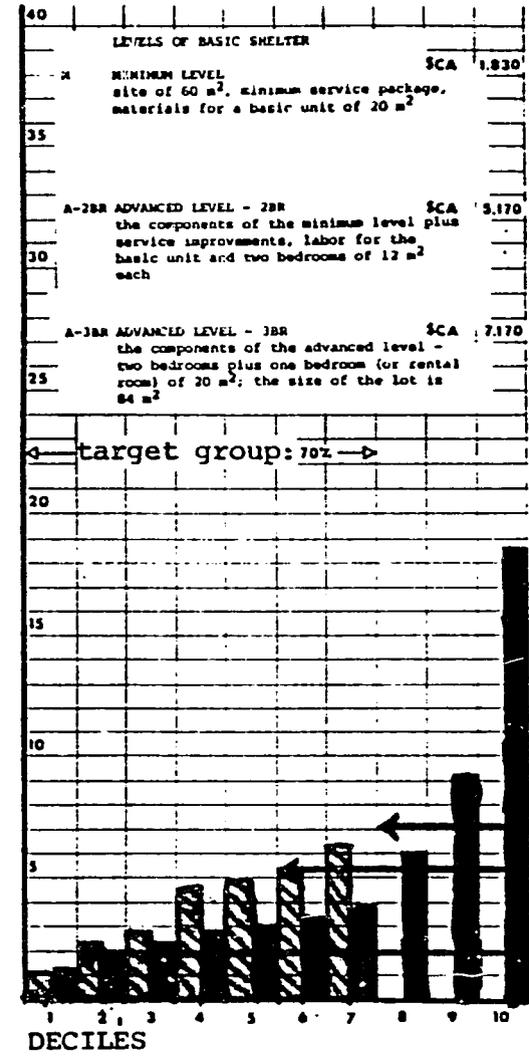
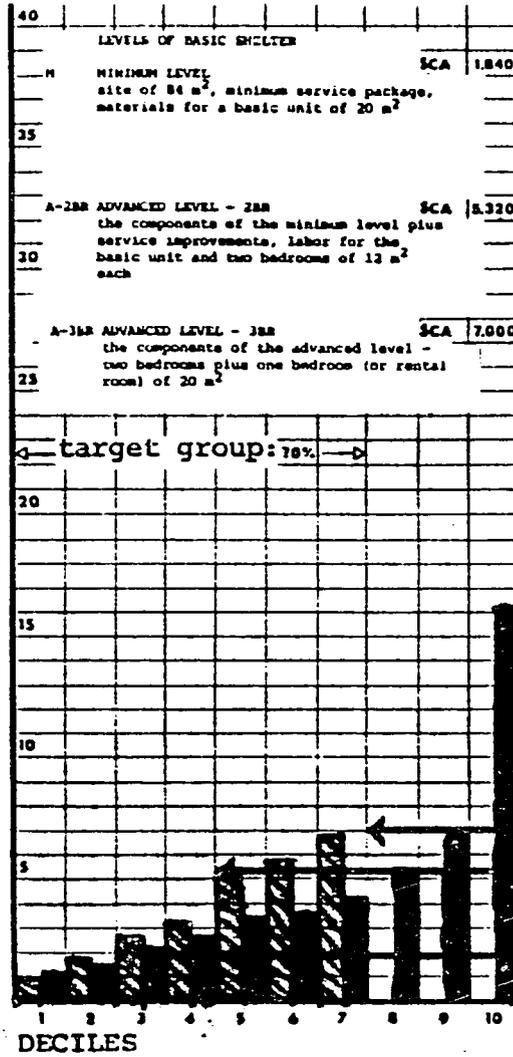
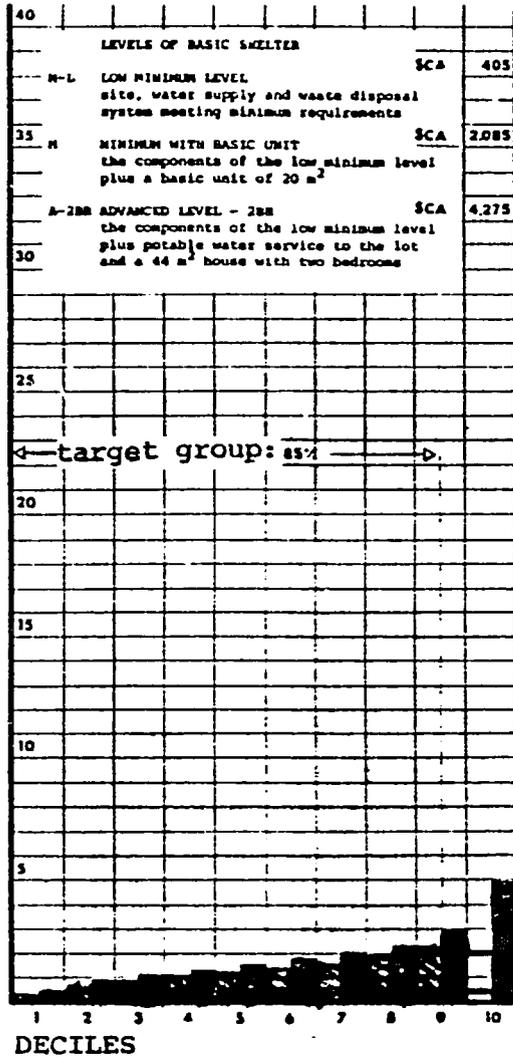
ANNUAL HOUSEHOLD INCOME

MAX. AVERAGE INVESTMENT

RURAL

NON-METROPOLITAN
URBAN

METROPOLITAN



Rural

Under the break-even scenario of national income growth between 70% (Honduras) and 100% (Costa Rica) of the rural population can afford a minimum basic shelter package without a basic unit. The results in the high and low growth scenarios are practically identical.

Expectedly, only a small share of the rural population can afford to buy a small house (basic unit) in addition to the minimum service package. With the exception of Costa Rica only 10% or 20% of the rural population in Central America can afford a minimum basic shelter package that includes this component.

Non-Metropolitan Urban

Although the information on the average cost of supplying basic shelter components in non-metropolitan urban areas appears more reliable than the general estimates for rural areas, it must be interpreted cautiously. There are great differences between such urban areas, ranging from tiny towns to cities with 50,000 to 100,000 inhabitants and from stagnant mountain places to dynamic agro-industrial centers in the coastal regions.

With this qualification the summary results are presented in Figure 2 and Table 5 as an indication of the order of magnitude of the basic shelter that average non-metropolitan urban households can afford to buy by income group.

Under the break-even scenario the share of the population able to afford the minimum level of basic shelter ranges from 80% to 90% in all countries except El Salvador.

The analysis sustains the important conclusion that between 70% and 90% of the non-metropolitan urban population can afford a complete minimum level basic shelter solution.

Metropolitan

The summary in Table 5 reveals that 90% of the metropolitan population in all five countries under all three national income growth scenarios can afford a basic shelter package meeting the minimum level used in this study (security of tenure on a site of 60 square meters, adequate vehicular and pedestrian access including paved walkways and storm drainage ditches and street lighting, safe piped water within about 50 meter walking distance, a latrine for exclusive use of the dwelling and at least the materials for a basic unit.)^{1/}

^{1/}It should be noted that, with the exception of families in the second decile in Honduras and Nicaragua under the low growth scenario, these households can also afford the labor for the basic unit and most of them additional components such as water and sewer service to the site.

TABLE 5
CENTRAL AMERICA
PERCENT OF HOUSEHOLDS ABLE TO AFFORD
MINIMUM AND ADVANCED BASIC SHELTER
BY COUNTRY, SECTOR AND NATIONAL INCOME GROWTH SCENARIO
1990

COUNTRY AND SECTOR	MINIMUM BASIC SHELTER						ADVANCED BASIC SHELTER					
	WITHOUT BASIC UNIT (RURAL ONLY) SCENARIO			WITH BASIC UNIT SCENARIO			2 BEDROOMS SCENARIO			3 BEDROOMS (URBAN ONLY) SCENARIO		
	HIGH	BREAK-EVEN	LOW	HIGH	BREAK-EVEN	LOW	HIGH	BREAK-EVEN	LOW	HIGH	BREAK-EVEN	LOW
COSTA RICA												
Rural	100	100	100	80	70	70	*	20	20			
Non-Metropolitan Urban				90	90	90	80	80	70	70	60	60
Metropolitan				90	90	90	80	80	80	80	70	70
EL SALVADOR												
Rural	90	90	90	10	20	20	*	*	*			
Non-Metropolitan Urban				90	70	70	40	*	*	*	*	*
Metropolitan				90	90	90	80	70	60	60	50	50
GUATEMALA												
Rural	80	80	80	*	20	20	*	*	*			
Non-Metropolitan Urban				90	90	90	60	50	50	50	40	40
Metropolitan				90	90	90	70	70	60	60	60	50
HONDURAS												
Rural	70	70	60	*	*	*	*	*	*			
Non-Metropolitan Urban				80	80	80	50	50	40	40	40	30
Metropolitan				90	90	90	60	60	50	50	50	40
NICARAGUA												
Rural	90	90	90	20	20	*	*	*	*			
Non-Metropolitan Urban				90	80	80	60	60	40	40	30	30
Metropolitan				90	90	90	60	50	40	30	30	30

SOURCE: Annex V

* This solution is only afforded by households with incomes above the levels used for the target group.

A shelter package satisfying an advanced basic shelter level with two bedrooms is within the reach of 60% of the metropolitan population in Honduras and Nicaragua, 70% of the residents of metropolitan Guatemala City and 80% of the residents of metropolitan San Jose, Costa Rica and San Salvador under the high national income growth scenario. Under the break-even scenario the share of these households would drop by 10% in only two countries (El Salvador and Nicaragua) and under the low growth scenario by 10% in another two countries (Guatemala and Honduras) and by an additional 10% in El Salvador.

UPGRADING

Annex VI relates the estimated cost, by income group, of providing basic shelter components to households in need of upgrading to the estimated need by income group.

In urban areas in several countries the share of the population able to afford a minimum upgrading package was somewhat smaller than the corresponding share of the population able to afford a new minimum standard basic shelter solution. Such differences may indicate that the cost of more centrally located existing housing is often relatively high, even if it lacks essential services.

CONCLUSION

The need for basic shelter estimated in the previous part of this report suffices to provide the following levels of unsubsidized shelter in the five Central American countries:

- (1) Between 70% (Honduras) and 100% (Costa Rica) of all rural households can afford a minimum service package including a safe water supply system within reasonable walking distance and a private latrine. Sixty percent of Costa Rica's rural households but only 20% of the rural households in the other countries can also afford a basic unsubsidized unit.
- (2) Provided a minimum lot size of 60 M² is used in all urban areas (not only in metropolitan areas where small lots have become more widely accepted) between 80% (El Salvador, non-metropolitan urban areas) and 90% (all other urban areas) of Central America's urban population can afford an unsubsidized minimum shelter package consisting of a site, site preparation and retaining walls, adequate vehicular and pedestrian access, storm drainage, street lighting, piped water within short walking distance, a latrine for the exclusive use of the household and a basic unit of 20 M². With the exception of non-metropolitan urban areas in El Salvador, between 50% (Nicaragua) and 80% (Costa Rica) of the urban population can afford a more advanced basic shelter solution including, in addition to the minimum components, street pavement, water, sewer and electricity service to the site, plumbing and wiring in the house and two bedrooms.
- (3) The effects of significantly different rates of national income growth on affordability are relatively insignificant.

ANALYSIS OF THE INVESTMENT NEEDED FOR BASIC SHELTER

This final part of the report analyzes the projected orders of magnitude of an investment in basic shelter in relation to the size of the economy of the five countries and their current levels of housing investment.

BASIC SHELTER INVESTMENT NEEDS AS A SHARE OF GROSS DOMESTIC PRODUCT

The projected need for investment in basic shelter will require an average share of 2.4% of the region's Gross Domestic Product if current levels of real personal per capita income are maintained during the next twenty years (break-even scenario of national income growth and income distribution). The share of Gross Domestic Product will range from about 2% in El Salvador and Honduras to about 2.5% in Costa Rica and Nicaragua and 2.7% in Guatemala.

If national income in the region grows at a low average rate for the rest of the century the need for basic shelter would require a larger piece of a smaller pie, averaging 3% for the region. Conversely, if national income grows at a high rate and the current income distributions are maintained, the share of Gross Domestic Product required for basic shelter would be as low as 1.6%. Table 6 summarizes this analysis.

PROJECTED BASIC SHELTER INVESTMENT IN RELATION TO LEVELS OF CURRENT HOUSING INVESTMENT

In order to explore the ease or difficulty which the five nations are likely to experience in meeting the projected basic shelter investment needs, current levels of housing investment were examined and compared to projections of future investment levels required to cover the need for basic shelter as well as maintain current levels of investment for the higher income groups that do not need basic shelter.

CURRENT LEVELS OF HOUSING INVESTMENT

Available information on housing investment in Central America is somewhat fragmentary and incomplete.

However, household income data was compared to the reported costs of the housing solutions produced and/or financed by the various public and private agencies reporting housing investment in each country. Thusly, the total levels of current housing investment were disaggregated for the target group as well as for higher income groups.

TABLE 6
CENTRAL AMERICA
PROJECTED TOTAL INVESTMENT
TO MEET BASIC SHELTER NEEDS
AS A PERCENT OF GROSS DOMESTIC PRODUCT

GDP GROWTH SCENARIO	CENTRAL AMERICA	COSTA RICA	EL SALVADOR	GUATEMALA	HONDURAS	NICARAGUA
LOW	3.0	2.6	2.5	3.6	2.8	2.9
BREAK-EVEN	2.4	2.4	2.0	2.7	2.1	2.5
HIGH	1.6	1.3	1.2	2.0	1.6	1.6

SOURCE: Annex VII

Table 7 summarizes the most recent data on housing investment in the five countries, broken down by target group and investment for higher income groups. Annex VIII presents a detailed, annotated list of the sources.

In constant 1980 value, annual housing investment ranged from \$CA 27 million in Honduras to \$CA 51 million in Nicaragua, \$CA 83 million in El Salvador, \$CA 135 million in Costa Rica and about \$CA 160 million in Guatemala, totaling nearly \$CA 460 million in the region.

Overall, the target group has received less than one-third of this total investment, ranging from about 12% in El Salvador and Nicaragua to 34% in Honduras and 42% in Costa Rica and Guatemala.

The latest reported housing investment averaged 2.6% of Gross Domestic Product in the region with a range of 1.5% in Honduras to 2.1% in Guatemala, 2.7% in El Salvador, 3.4% in Nicaragua and 3.9% in Costa Rica.

PROJECTED HOUSING INVESTMENT NEEDS COMPARED TO CURRENT HOUSING INVESTMENT LEVELS

Total housing investment needs for the next twenty years were estimated as the sum of the share of Gross Domestic Product currently expended for housing for higher income groups and the GDP share required to meet the need for basic shelter investment by the target group. Table 8 presents the results.

The additional share of Gross Domestic Product required to meet total investment in housing averages 1.6% for the region, ranging from .8% in Costa Rica to 1.6% in El Salvador and Honduras, 1.8% in Guatemala and 2.1% in Nicaragua.^{1/}

Although the additional share of GDP to be devoted to housing is modest and appears clearly within the resource constraints of the five Central American countries, the existing housing investment in the region will have to be significantly increased to meet the full shelter needs of the poorest 75% of the populace. Table 8 shows an average increase in housing investment over present levels of about 60% with wide differences among the five countries, ranging from a modest 20% increase in Costa Rica to a more than 100% increase in Honduras.

ORDER OF MAGNITUDE OF AN AVERAGE ANNUAL SUBSIDY ENABLING ALL HOUSEHOLDS TO AFFORD THE FULL CO. OF MINIMUM LEVEL BASIC SHELTER

The previous chapter concluded that close to 90% of Central America's population can afford minimum level basic shelter. The purpose of this last section is to analyze the order of magnitude of a subsidy that would permit those

^{1/} Churchill estimated that worldwide a .8% increase in the share of GDP devoted to housing would suffice to meet basic shelter investment needs. If Churchill's narrow target group definition (population below the poverty threshold) was applied to the analysis and data sources of this study the additional GDP share needed for basic shelter in Central America would be substantially lower than .8%, thus clearly supporting the conclusion of his paper that meeting basic shelter investment needs is well within the resource constraints of most developing countries.

TABLE 7
CENTRAL AMERICA
PRESENT ANNUAL INVESTMENT IN HOUSING
BY INCOME GROUP AND SOURCE
IN 1980 \$CA MILLIONS AND
AS A PERCENT OF GROSS DOMESTIC PRODUCT

INCOME GROUP AND SOURCE (PUBLIC/PRIVATE)	CENTRAL AMERICA		COSTA RICA		EL SALVADOR		GUATEMALA		HONDURAS		NICARAGUA	
	AMOUNT	% OF GDP	AMOUNT	% OF GDP	AMOUNT	% OF GDP	AMOUNT	% OF GDP	AMOUNT	% OF GDP	AMOUNT	% OF GDP
Total Present Annual Investment in Housing (1978/1979) ^{1/}												
Total	455.8	2.6	134.5	3.9	83.3	2.7	159.3	2.1	27.4	1.5	51.3	3.4
Public			62.3	1.8			51.9	.7				
Private			72.2	2.1			107.1	1.4				
Present Annual Investment in Housing for the Target Group												
Total	149.4	.8	56.0	1.6	11.9	.4	66.0	.9	9.4	.5	6.1	.4
Public			32.4	.9			52.0	.7				
Private			23.6	.7			14.0	.2				
Present Annual Investment in Housing for Higher Income Groups												
Total	106.4	1.8	78.5	2.3	71.4	2.3	93.3	1.2	18.0	1.0	45.2	3.0
Public			29.9	.9			0					
Private			48.6	1.4			93.3	1.2				

SOURCE: Annex VIII

NOTE:

^{1/}The most recent information for Nicaragua is for 1974.

TABLE 8
CENTRAL AMERICA

COMPARISON OF PRESENT INVESTMENT IN HOUSING
AND PROJECTED TOTAL ANNUAL INVESTMENT NEEDED
BY INCOME GROUP IN 1980 \$CA MILLIONS AND
AS A PERCENT OF GROSS DOMESTIC PRODUCT

TYPE OF INVESTMENT AND INCOME GROUP	CENTRAL AMERICA		COSTA RICA		EL SALVADOR		GUATEMALA		HONDURAS		NICARAGUA	
	AMOUNT	% OF GDP	AMOUNT	% OF GDP	AMOUNT	% OF GDP	AMOUNT	% OF GDP	AMOUNT	% OF GDP	AMOUNT	% OF GDP
A. Present Annual Investment in Housing (1978/1979)^{1/}												
1. Total	455.8	2.6	134.5	3.9	83.3	2.7	159.3	2.1	27.4	1.5	51.3	3.4
2. Target Group	149.4	.8	56.0	1.6	11.9	.4	66.0	.9	9.4	.5	6.1	.4
3. Higher Income Groups	106.4	1.8	78.5	2.3	71.4	2.3	91.3	1.2	18.0	1.0	45.2	3.0
B. Total Investment Required for the 1981-2000 Period												
1. Total	25,010.3	4.2	6,201.9	4.7	4,430.1	4.3	8,791.5	3.9	2,527.7	3.1	3,079.1	5.8
2. Target Group	14,425.7	2.4	3,166.9	2.4	2,060.5	2.0	6,086.4	2.7	1,712.3	2.1	1,399.6	2.3
3. Higher Income Groups	10,604.6	1.8	3,035.0	2.3	2,369.6	2.3	2,705.1	1.2	815.4	1.0	1,679.5	3.0
C. Required Increased Share of GDP for Housing Investment^{2/}												
1. Total		1.6		.8		1.6		1.8		1.6		2.1
2. Target Group		1.6		.8		1.6		1.8		1.6		2.1
3. Higher Income Groups		0		0		0		0		0		0
D. Required Increase in Housing Investment over Present Levels	62		21		59		86		107		62	

SOURCE: Annex VIII

NOTES:

^{1/}The most recent information for Nicaragua is for 1974.

^{2/}Line A minus Line B

unable to afford the full cost of minimum level basic shelter to purchase a minimum shelter solution.

Table 9 presents the results of this analysis for 1990, the midpoint of the analysis period. Overall, a subsidy of less than \$CA 30 million a year will enable the poor to afford minimum level solutions. This subsidy would average one-tenth of one percent of Gross Domestic Product for the region,^{1/} ranging from .04% in Costa Rica to .14% in El Salvador.

^{1/}
Break-even Scenario

TABLE 9
CENTRAL AMERICA

ESTIMATED NEED FOR AN AVERAGE ANNUAL SUBSIDY
ENABLING ALL HOUSEHOLDS TO AFFORD
THE FULL COST OF MINIMUM LEVEL BASIC SHELTER
1990
1980 \$CA MILLIONS

SECTOR	CENTRAL AMERICA		COSTA RICA		EL SALVADOR		GUATEMALA		HONDURAS		NICARAGUA	
	AMOUNT	% OF GDP	AMOUNT	% OF GDP	AMOUNT	% OF GDP	AMOUNT	% OF GDP	AMOUNT	% OF GDP	AMOUNT	% OF GDP
TOTAL	28.149	.10	2.778	.04	4.639	.09	12.415	.11	5.643	.14	2.674	.10
RURAL	4.822	.02	0.000	.00	.960	.02	2.010	.02	1.558	.04	.285	.02
NON-METROPOLITAN URBAN	9.814	.04	1.285	.02	2.119	.04	2.856	.02	2.312	.06	1.242	.04
METROPOLITAN	11.511	.04	1.493	.02	1.551	.03	7.544	.07	1.773	.04	1.147	.04

SOURCE: Annex IX

ACKNOWLEDGEMENTS

Many public and private agency staff in the five Central American countries and from regional and international organizations contributed to this effort to measure Central America's basic shelter needs over the next twenty years. It is not possible to name the many individuals who gave of their valuable time and assistance. However, the following deserve special recognition and thanks for contributing to the conduct of this study.

In Washington and New York, the study team was given much advice in the study methodology and directed to a large share of the key data sources used by members of the World Bank's Urban Projects staff, the United Nations' Department of International Economic and Social Affairs, and the Inter-American Development Bank's Urban Development Section.

In Central America, staff of the Central American Bank for Economic Integration including its president, Alberto Galeano M., members of the bank's housing research and promotion section and many other staff with the bank's headquarter office in Tegucigalpa as well as those with the bank's various country offices in Guatemala City, Managua, Nicaragua, San Salvador, El Salvador, and San Jose, Costa Rica, cooperated closely with the study team during the field research phase to review and discuss the study methodology, identify important data sources, and help arrange meetings and participate in key interview sessions. Similarly, in more than one instance, the local Central American Housing and Urban Development Conference (COPVIDU) representative in each country assisted study team members with logistical support.

Staff of the five USAID missions in Central America plus ROCAP from Mission Directors on down, as well as staff from the United States embassies in the five countries, provided data, valuable comments on the study methodology, and indispensable logistical support.

Cooperation of public and private agency staff was particularly important in estimating costs of a basic shelter solution in each of the countries. Such key data and its verification were provided in: (1) Costa Rica by staff of the National Housing Institute (INVU), the Central Savings and Loan System (DECAP), the Mutual Housing Savings and Loan Association, the Social Assistance Institute (IMAS), and the Water and Sewer Agency (AyA); (2) El Salvador by staff of the Social Housing Fund (FSV), the National Housing Fund (FNV), the Salvadoran Foundation for Minimum Cost Housing (FUNDASAL), and the Urban Housing Institute (IVU); (3) Guatemala by staff of the National Agricultural Development Bank (BANDESA), the National Housing Bank (BANVI), the Chamber of Construction, the National Federation of Housing Cooperatives (FENACOVI), and the Mortgage Insurance Agency (FHA); (4) Honduras by staff of the Honduran Federation of Housing Cooperatives (FEHCOVIL), the National Housing Finance Agency (FINAVI), the Honduran Foundation for Minimum Cost Housing (FUNVIMINH), the Municipality of San Pedro Sula's Planning Office, the Autonomous National Housing Agency (INVA), and the Autonomous National Water and Sewer Service (SANAA); and (5) Nicaragua by staff of the Housing and Human Settlement Ministry, the National Development Foundation (FUNDE), and the National Water and Sewer Agency (INAA).

Staff from agencies of each of the countries played an important role in reviewing the study methodology and providing demographic and macro-economic information. Among these were the following: (1) in Costa Rica from the University of Costa Rica's Economics Department, the National Planning and Economic Policy Council (OFIPLAN), the Office of the Presidency, and the Housing and Human Settlement Ministry; (2) in El Salvador from the Planning Ministry and the Ministry of Public Works; (3) in Guatemala from the National Economic Planning Council; (4) in Honduras from the Superior Economic Planning Council (CONSUPLANE); and (5) in Nicaragua from the National Statistics and Census Bureau (INEC).

Finally, special thanks must be given to the firm of Abeles, Schwartz, Haeckel, and Silverblatt for putting it all together and turning out such a high quality piece of work!

ANNEX II.

LIST OF INSTITUTIONS AND INDIVIDUALS

WHO CONTRIBUTED TO STUDY

WORLD BANK

- Anthony A. Churchill, Director of Urban Projects Department
- Michael Bamberger, Development Economics Department
- Roberto Chavez, Urban Planner, Latin America and Caribbean Urban Projects Division
- George Gattoni, Architect Planner, Latin America and Caribbean Urban Projects Division
- Alberto Harth-Denecke, Senior Architect-Planner, Latin America and Caribbean Urban Projects Division
- Juan Giral, Economist for El Salvador and Honduras, Central American Programs Department
- Gabriel Siri, Economist for Nicaragua, Central American Programs Department
- Farid Dhanji, Economist for Costa Rica, Central American Programs Department
- Elaine Hubert, Loan Officer for Honduras, Central American Programs Department

UNITED NATIONS, DEPARTMENT OF INTERNATIONAL ECONOMIC AND SOCIAL AFFAIRS

- Christina Hannig
- Alice Hecht

INTER-AMERICAN DEVELOPMENT BANK

- Enrique Buguñá, Chief, Urban Development Section
- Lisandro Montanaro, Loan Officer, Division II, Operations Department

CENTRAL AMERICAN BANK FOR ECONOMIC INTEGRATION (CABEI)

- Alberto Galeano M., President
- Rafael A. Chavarria P., Chief of Housing Research and Promotion Section
- Adolfo Becerril D., Housing Research and Promotion Section
- Armando Astorga C., Chief of Infrastructure and Housing Technology Section
- Rodolfo Saenz Bellanger, Infrastructure and Housing Technology Section
- Fernando Garcia R., Social Development Project
- Dr. Ruben D. Utria, UNDP/CABEI Project
- Jorge E. Rodriguez G., UNDP/CABEI Project
- Lisete de Maceniegos, CABEI's Guatemala Office
- Luis Sanchez, CABEI's Nicaraguan Office Representative
- Roger Zuñiga, CABEI's Nicaragua Office

USAID MISSIONS AND U.S. EMBASSIES

COSTA RICA

- Stephen Knaebel, Mission Director
- Flora Ruiz, Housing and Urban Development Office
- Ediberto Rodriguez, Engineer
- Mitchell Sellingson, Consultant to USAID/CR
- David Olinger, Housing and Urban Development Officer
- David Grossman, Housing and Urban Development Office
- Michael Davila, Chief Economic Officer of the Embassy

EL SALVADOR

- Jess Snyder, Acting Mission Director

GUATEMALA

- Henry Bassford, Acting ROCAP Director
- Tom Stukel, USAID/Guatemala Loan Officer
- Carlos Crowe, USAID/Guatemala Engineer
- Jack Eyre, ROCAP
- Victor Dardon, ROCAP Engineer
- Rafael Franco, ROCAP Capital Development Office
- Rick McLaughlin, USAID/Guatemala Program Officer
- David Timmins, Chief Economic Officer of the Embassy

HONDURAS

- Leo Ruelas, Deputy Mission Director
- Donald E. Anderson, Special Assistant to Mission Director
- John C. Kelley, Housing and Regional Development Officer
- Roger Russell, Engineering Office
- Ed Barker, Capital Development Office
- Concepcion Mejia, Economist

NICARAGUA

- Lawrence E. Harrison, Mission Director
- Alcides Moreno, Loan Officer
- John Curry, Chief Economic Officer of the Embassy

COSTA RICAN INSTITUTIONS

INVU

- Francisco D'Arsie, Urban Development
- Jose Francisco Comacho, Program Control and Statistics
- Carlos Luis Gonzales Campos, Planning
- Garrett Cotter, Planning
- Ana Irene Garbanzo

DECAP

- Roberto Cossani, Executive Director
- Marialla Montoya
- Simon A. Solano Araya

MUTUAL HOUSING SAVINGS AND LOAN ASSOCIATION

- Alvaro Saborio, Manager

IMAS

- Jorge Marcherra
- Oliveth Boqantes

Aya

- Oswaldo di Luca

UNIVERSITY OF COSTA RICA, ECONOMICS DEPARTMENT

- Professor Victor Hugo Cespedes

OFIPLAN

- Iveta D. Ganeva
- Nidia Formiga
- Carlos Solano

OFFICE OF THE PRESIDENCY

- Sary White

MINISTRY OF HOUSING AND HUMAN SETTLEMENT

- Manuel Morales

EL SALVADORAN INSTITUTIONS

FSV

- Joaquin Mancía, General Manager
- Carlos Orlando Nolasco, Technical Department
- Leonel Ruano Zavala, Planning and Evaluation

FNV

- Francisco Ulloa, Planning

FUNDASAL

- Marco Julio Guardado, Financing

IVU

- Carlos Benjamin Luna, Planning

MINISTRY OF PLANNING

- Fausto Betancourt, Executive Director of Planning and Evaluation
- Ana Elena Escalante
- Jose Eduardo Navarro, Chief, Sample Research Unit

MINISTRY OF PUBLIC WORKS

- Luis Escobar Moisa, Sub-Secretary
- Jose Salvador Chorro, Sub-Director

GUATEMALAN INSTITUTIONS

BANDESA

- Francisco Lopez Ursua, Manager
- Francisco Diaz, Housing
- Luis Rafael Leonardo, Architect

BANVI

- Colonel Ruban Alvarez Artiga, President
- Victor Hugo Godoy M., Housing Research
- Jaime Adolfo Caballeros, Housing
- Eduardo Cabrera, Reconstruction Programs
- Emilio Morales, Fideocomiso
- Manuel Monteroso, BANVI/World Bank Program

CHAMBER OF CONSTRUCTION

- Jorge Franco, Manager
- Rodolfo Alvarado G. S., Director
- Cesar Augusto Calvillo
- Alfredo Granai

FENACОВI

- Ruano Martinez, Manager
- Luis Robles, Engineer

FHA

- Colonel Raul Reyna Rosal, Manager

NATIONAL ECONOMIC PLANNING COUNCIL

- Francisco Chavarria S., Housing Department
- Edgardo Castañeda, Social Planning

HONDURAN INSTITUTIONS

FEHCOVIL

- Jose Ascona

FINAVI

- Paulino Zuriga

FUNVIMINH

- William Kivett, Executive Director
- Amanda von Eicken

MUNICIPALITY OF SAN PEDRO SULA, PLANNING OFFICE

- Napoleon Duarte, Director
- Victor Ramon Paz M., Economist

INVA

- Manuel Castro Wu, Planning
- Rosa M. Hurtado de Castillo, Budgeting

SANAA

- Ruben Clare Andino, Manager

CONSUPLANE

- Mario Hepburne, Head of Housing Office

NICARAGUAN INSTITUTIONS

MINISTRY OF HOUSING AND HUMAN SETTLEMENTS

- Sergio Maltez, Project Coordinator
- Erasmo Vargas, Planning
- Augusto C. Teran, Planning
- Celina Peñalba, Research

FUNDE

- Edgard Sotomayor, Director of Housing Department

INAA

- Gregorio Herrera, Planning

INEC

- Aminta Granera

OTHERS

- German Figueroa, Director of PROTESA, a Costa Rican Private Consulting Firm

BIBLIOGRAPHY

GENERAL

0. Churchill, Anthony A., Basic Needs in Shelter, International Bank for Reconstruction and Development (World Bank), Urban Project Department, unpublished, April, 1979
1. Fox, Robert W. and Jerrold W. Huguet, Population and Urbanization Trends in Central America and Panama, Washington, D.C.: Interamerican Development Bank, 1977
2. Jain, Shail, Size Distribution of Income, Washington, D.C.: The World Bank, 1975
3. United Nations, Department of International Economic and Social Affairs, A System of National Accounts, Studies in Methods, 1968
4. _____, World Population Trends and Prospects by Country, 1950-2000: Summary Report of the 1978 Assessment, 1978
5. _____, Yearbook of National Accounts Statistics, 1979 Volume 1, 1980
6. United Nations, Department of International Economic and Social Affairs, Office of Development Research and Policy Analysis, Handbook of World Development Statistics, 1979. Major Economic Indicators Showing Historical Development Trends, 3/1980
7. United Nations, Department of International Economic and Social Affairs, Population Division, Estimates and Projections of Households for the World, Regions and Countries as Assessed in 1973-1977, Provisional Report, 1/1979
8. _____, Urban, Rural and the City Population for 1950-2000 as Assessed in 1978, (Computer Printout), 5/1980
9. _____, World Population and its Age - Sex Composition by Country, 1950-2000: Demographic Estimation and Projection as Assessed in 1978, 1/1980

COSTA RICA

- C1 Carreras, Rodrigo, Marcos Bogan and Justo Aguilar, Vivienda y Poblacion en Costa Rica, Proyeccion: Necesidades de Vivienda Hasta el Ano 2000, IDESPO, Informe No. 19, Edicion Revisada, 7/1980

- C2 Céspedes, Victor Hugo, Costa Rica: La Distribucion del Ingreso y el Consumo de Algunos Alimentos, IECES, Universidad de Costa Rica, 1973
- C3 _____ , Evolucion de la Distribucion del Ingreso en Costa Rica, Universidad de Costa Rica, Instituto de Investigaciones en Ciencias Economicas, 12/1979
- C4 Direccion General de Estadistica y Censos, Censos Nacionales de Vivienda, Republica de Costa Rica, 1973
- C5 FCH International, Inc., Preliminary Report on Shelter Programs for Low Income Families in Limon, Costa Rica, United States Agency for International Development, 1/1980
- C6 Gonzales, Vinicio and Sary White, La Situacion del Nino en Costa Rica, Anexo 2 Informe Tecnico y Tabulaciones de la Encuesta de Regiones Seleccionadas, Fondo de las Naciones Unidas para la Infancia, Oficina de Planificacion Nacional y Politica Economica, Universidad de Costa Rica
- C7 Instituto Costarricense de Acueductos y Alcantarillados (AyA), Anuario Estadistico 1978
- C8 Instituto Mixto de Ayuda Social (IMAS), Estimacion de la Poblacion Marginada de Costa Rica, por Oficinas Sectoriales y Delegaciones Regionales del IMAS, al 1 de Julio de 1977, 8/1978
- C9 _____ , Informacion sobre el Numero de Viviendas Necesarias para Familias de Escasos Recursos para el Periodo 1979-1983, por Delegacion Regional del IMAS, 3/1979
- C10 _____ , Resumen sobre la Labor del IMAS en el Periodo del 1/7/71 at 31/3/80, 4/1980
- C11 Instituto Nacional de Vivienda y Urbanismo (INVU), Apuntes Generales sobre la Evaluacion de la Vivienda y el Urbanismo en Costa Rica, 1979
- C12 _____ , Boletin Estadistico, 1978
- C13 _____ , Condiciones que Rigen en el Mercado para la Venta y Financiamiento de Vivienda en los Sectores Publico y Privado, 3/1980
- C14 International Bank for Reconstruction and Development (World Bank), Economic and Social Data as of 3/27/80
- C15 _____ , Economic Position and Prospects of Costa Rica, 11/1977

- C16 Oficina de Planificacion Nacional y Politica Economica (OFIPLAN), La Pobreza en Costa Rica, Analysis del Sector Urbano, 1/1979
- C17 Peace Corps, Costa Rica, Country Management Plan FY80, 3/1979
- C18 _____, Country Narrative, Costa Rica, 3/1977
- C19 Rosales, Ricardo Ampre, The Effective Housing Demand of the Greater San Jose Area, Costa Rica, 9/1971
- C20 United States, Agency for International Development, Costa Rica, Country Development Strategy Statement, FY82-86, 1/1980
- C21 _____, Costa Rica, Shelter Sector Assessment, 1977 (update)
- C22 _____, Costa Rica, Shelter Sector Study, Oct. 1975
- C23 _____, Urban Employment and Community Improvement, Project Paper, Costa Rica, 7/1978

EL SALVADOR

- E1 Comision Nacional de Vivienda y Desarrollo Urbano, Habitat, Informe Nacional sobre Asentamientos Humanos, 1976
- E2 Ernst, Daniel, The Informal Housing Market in San Salvador (First Draft), International Bank for Reconstruction and Development (World Bank), 9/1979
- E3 Estudio de Desarrollo Urbano y Regional (EDURES), Programa para el Mejoramiento Integrado de las Areas Criticas Metropolitanas, Resumen Ejecutivo, 5/1978
- E4 _____, Programa para el Mejoramiento Integrado de las Areas Criticas Metropolitanas, Volumen 1: Conclusiones y Recomendaciones Principales, 5/1978
- E5 Financiera Nacional de la Vivienda (FNV) Memoria 1979, 1979
- E6 Fundacion Salvadorena de Desarrollo y Vivienda Minima, (FUNDASAL), El Mercado Habitacional Urbano en El Salvador: Analisis del Acceso de los Pobres a Vivienda en las Ciudades Principales del Pais, Volumen 1, Trabajo preparado para la investigacion: La Vivienda Popular Urbana en el Salvador, patrocinada por: Fundacion Salvadorena de Desarrollo y Vivienda Minima, Centro Internacional de Investigacion para el Desarrollo, y Sociedad Interamericana de Planificacion, 4/1976

- E6a _____, Evaluacion de Proyectos Habitacionales en el Salvador, 1978
- E7 _____, Memoria, 1980
- E8 Instituto Nacional de Vivienda Urbana (IVU), Programa de Vivienda, (borrador para el Plan Nacional de Emergencia), 1980
- E9 Instituto de Vivienda Urbana (IVU), Unidad de Planificacion, Resumen Informativo, Programa Acceso al Bienestar Comunitario (A.B.C.), 1980
- E10 _____, Normas de Diseno, 1980
- E11 International Bank for Reconstruction and Development (World Bank), An Economic Analysis of Low-Cost Housing Options in El Salvador, 8/1979
- E12 _____, Economic Memorandum on El Salvador, 5/1979
- E13 _____, Economic and Social Data as of 1/23/80
- E14 _____, El Salvador, Demographic Issues and Prospects, 10/1979
- E15 Luna, Carlos Benjamin, ed., La Vivienda Popular Urbana en El Salvador, Volumen IV patrocinado por: Fundacion Salvadorena de Desarrollo y Vivienda Minima; Centro Internacional de Investigaciones para el Desarrollo; Sociedad Interamericana de Planificacion, 1976
- E16 Ministerio de Planificacion y Coordinacion del Desarrollo Economico y Social, Plan Nacional Bienestar para Todos, 1978-1982, 1978
- E17 Ministerio de Planificacion y Coordinacion del Desarrollo Economico y Social, Poblacion al 30 de Junio de los Anos Calendarios 1950-2000 (dos cuadros - two tables); Poblacion por Municipios (dos cuadros - two tables: Departamentos de San Salvador y de La Libertad), 1980
- E18 Ministerio de Planificacion y Coordinacion del Desarrollo Economico y Social, Seccion de Investigaciones Muestrales Distribucion del Ingreso Monetario Mensual (1975-1979), (un cuadro - one table), 1980
- E19 _____, Distribucion del Ingreso por Deciles de Familias - Muestra de Hogares, Documentos Preliminares, 1978
- E20 _____, La Situacion de la Vivienda, Descripcion Comparativa entre 1971-1975, 1978

- E21 Ministerio de Planificacion y Coordinacion del Desarrollo Economico y Social, Seccion de Investigaciones, Muestrales, y Direccion General de Estadistica y Censos, Resultados sobre la Vivienda, Encuesta de Hogares, Abril - Julio 1975, 1978
- E22 Ministerio de Planificacion y Coordinacion del Desarrollo Economico y Social, Banco Central de Reserva de El Salvador, Direccion General de Estadistica y Censos, Estructura del Gasto Familiar a Nivel de Articulos del Area Urbana Nacional y Area Metropolitana, Encuesta Nacional de Presupuestos Familiares (Agosto 1976 a Julio 1977), 1978
- E23 Ministerio de Salud, El Saneamiento Basico en el Medio Rural en El Salvador, Resumen, 1979
- E24 United States, Agency for International Development (AID), El Salvador Project Paper, Marginal Community Improvement, 3/1980
- E25 United States Agency for International Development, El Salvador Shelter Sector Assessment, 1980

GUATEMALA

- G1 Abeles, Schwartz, Haeckel and Silverblatt, Urban Poverty in Guatemala, Agency for International Development, Office of Housing, 3/1980
- G2 Amaro V., Nelson, Informe sobre Aspectos Sociales del Segundo Proyecto de Desarrollo Integrado, Banco Nacional de Vivienda (BANVI), Banco Internacional de Reconstruccion y Fomento (BIRF), 9/1978
- G3 Asociacion Nacional de Constructores de Viviendas (ANACОВI), El Problema Habitacional en Guatemala, 2/1979
- G4 Banco Nacional de Desarrollo Agricola (BANDESA), Unidad Ejecutora de Vivienda, Memoria de Labores, 1976, 1978
- G5 Banco Nacional de la Vivienda (BANVI), El Banco Nacional de la Vivienda y la Problematica Habitacional de Guatemala, 1980
- G6 Consejo Nacional de Planificacion Economica, Secretaria General, Breves Consideraciones Respecto a la Definicion de Clases Sociales, 1980
- G7 _____, Estrategia para la Solucion del Problema de la Vivienda en Guatemala, 6/1980
- G8 _____, Plan de Accion Inmediato para el Desarrollo de la Estrategia de Vivienda, 1980

40

- G9 _____, Plan de Accion Social (PASO), 3/1980
- G10 Consejo Nacional de Planificacion Economica, Secretaria General; Banco Nacional de Vivienda; Banco Nacional de Desarrollo Agricola; con la cooperacion tecnica del Proyecto UNCHS No. GUA/76/106, Marco Conceptual para una Politica Nacional de Vivienda, por Arq. Hiram Quiroga, 10/1979
- G11 _____, Plan Nacional de Desarrollo 1979-1982, Sector Vivienda, Guatemala, 12/1979
- G12 _____, Politica Nacional de Vivienda, Guatemala, 2/1980
- G13 Estudios y Proyectos de Guatemala, Study of Urban Poverty in Guatemala, Initial Report on Background, 9/1979
- G14 Federacion Nacional de Cooperativas de Vivienda, R.L. (FENACОВI), Plan Operativo Anual, POA 1980, 1979
- G15 Instituto de Fomento de Hipotecas Aseguradas (FHA), Memoria de Labores Ano 1977, 1979
- G16 International Bank for Reconstruction and Development (World Bank), Guatemala, Country Economic Memorandum, 2/1980
- G17 _____, Economic and Social Data as of 5/27/80
- G18 _____, Guatemala, Economic and Social Position and Prospects, 1978
- G19 Marroquin, Hermes, ed., El Problema de la Vivienda Popular en el Area Metropolitana de Guatemala, prepared for Centro de Investigaciones en Vivienda y Desarrollo Urbano (CIVDU), 4/1978
- G20 Ministerio de Economia, Direccion General de Estadistica, Anuario Estadistico 1977, 1979
- G21 _____, Proyeccion de la Poblacion Urbana y Rural por Sexo y Grupos de Edad 1975-2000 (Hipotesis II), 9/1978
- G22 _____, III Censo de Habitacion, 26 de Marzo de 1973, 1976
- G23 Orellana G., Rene Arturo, "Perdida del Poder Aquisitivo del Quetzal", Economia, Universidad de San Carlos, Publicaciones IIES, No. 59, 3/1979
- G24 Universidad de San Carlos de Guatemala, Costo de la Vida, Publicaciones IIES, Estudios Monograficos No. 2, 1974

- G25 Universidad de San Carlos de Guatemala, Vivienda Urbana y Presupuestos Familiares, Publicaciones IIES, Estudios Monograficos, No. 1, 1974
- G26 United States Agency for International Development (AID), Health Sector Assessment, Guatemala, 11/1977
- G27 _____, Shelter and Related Development in Guatemala: Analysis and Recommendation for AID Support, 1976
- G28 _____, ROCAP - Urban Shelter Improvement, Project paper, February, 1978

HONDURAS

- H1 Comite Tecnico de Trabajo del Comite Nacional de Vivienda, Propuesta Esquematica de Objetivos, Estrategia y Metas para el Plan Nacional de Vivienda 1979-1989, 7/1978
- H2 Consejo Metropolitano del Distrito Central, 2500 Lotes y Servicios, Memoria de Anteproyecto, 1980
- H3 _____, Solicitud de Financiamiento, Banco Interamericano de Desarrollo, Proyecto de Lotes y Servicios e Industria de Barrio, 1979
- H4 Consejo Superior de Planificacion Economica (CONSUPLANE), La Distribucion del Ingreso en Honduras, 1973
- H5 _____, Plan Nacional de Vivienda, Honduras, Diagnostico 1977-1978, cuadros preliminares (inedito)
- H6 _____, Politica Nacional de Vivienda para Honduras, 9/1976, English translation 1/1978
- H7 _____, Proyecciones de la Poblacion, 1975-1990-2000, inedito
- H8 Federacion Hondurena de Cooperativas de Vivienda Ltda (FEHCOVIL), documentos entregados al equipo de trabajo del estudio de las necesidades regionales de vivienda basica en Centroamerica, 7/1980
- H9 Financiera Nacional de Vivienda (FINAVI), documentos entregados al equipo de trabajo del estudio de las necesidades regionales de vivienda basica en Centroamerica, 7/1980
- H10 Foundation for Cooperative Housing (FCH), Richard Owens, Report on the General Housing Situation in Honduras, Tegucigalpa, 11/1972

- H11 International Bank for Reconstruction and Development (World Bank), Economic and Social Data as of 1/25/80
- H12 _____, Memorandum on Recent Economic Development and Prospects of Honduras, 1/1978
- H13 Instituto de la Vivienda Autonomo (INVA), documentos entregados al equipo de trabajo del estudio de las necesidades regionales de vivienda basica en Centroamerica, 7/1980
- H14 INVEST, Las Condiciones de Empleo e Ingreso en el Sector Rural Pobre de Honduras, Informe III, Volumen I, 1979
- H15 PADCO, Integrated Improvement Program for the Urban Poor (IIUP), Task A, Memorandum A, B, C, D, United States Agency for International Development, 9/1979
- H16 Secretaria de Economia, Direccion General de Estadistica y Censos, Censo Nacional de Vivienda, 1974, 7/1976
- H17 United States Agency for International Development, Honduras Country Development Strategy Statement Fiscal Year 82, 1/1980
- H18 _____, Honduras, Housing Sector Analysis, 8/1974
- H19 _____, Honduras Project Paper, Municipal Development Bank II, 5/1980
- H20 _____, Honduras Project Paper, Rural Water and Sanitation, 3/1980
- H21 _____, Honduras Project Paper, Shelter for the Urban Poor, 9/1978
- H22 _____, Honduras Project Paper, Urban Upgrading, 4/1980

NICARAGUA

- N1 Delcanda, National Housing Policy, Analysis and Options, Volume II, Nicaraguan Housing Bank, 7/1977
- N2 _____, National Housing Policy, Recommendations and Policy Declaration, Volume I, Nicaraguan Housing Bank, 7/1977
- N3 _____, Nicaragua, Politica Nacional de Vivienda. Estudio, Metodologia y Diseno, Etapa I, Gobierno de Nicaragua, 12/1975

45

- N4 International Bank for Reconstruction and Development (World Bank), Estudio de la Vivienda y Desarrollo Urbano en Nicaragua, prepared by PADCO, 1978
- N5 _____, Memorandum on Recent Economic Development and Prospects of Nicaragua, 6/1978
- N6 _____, Report and Recommendation of the President of the International Development Association to the Executive Directors on a Proposed Credit to the Republic of Nicaragua for an Urban Reconstruction Project, 11/1979
- N7 Ministerio de Vivienda y Asentamientos Humanos (MINVAH), Proyecto de Mejoramiento de Barrios Marginados 1981, Prestamo con el Banco Interamericano de Desarrollo (BID), 5/1980
- N8 Oficina Ejecutiva de Encuestas y Censos (OEDEC), Analisis Demografico de Nicaragua Parte II, Boletin Demografico No. 5, 12/1978
- N9 Organizacion de las Naciones Unidas, Comision Economica para America Latina (CEPAL), Nicaragua: Repercusiones Economicas de los Acontecimientos Politicos Recientes, 8, 1979
- N10 United States Agency for International Development, All Data Currently Available on Nicaragua, (Based on World Bank sources)
- N11 _____, Nicaragua: Banco de la Vivienda en Nicaragua, Housing Guaranty Paper, 10/1969